1937
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I

REPORT I

International Labour Conference

TWENTY-THIRD SESSION
GENEVA, 1937

Safety Provisions for Workers in the Building Industry

with reference to

Scaffolding and Hoisting Machinery

First Item on the Agenda

GENEVA
INTERNATIONAL LABOUR OFFICE
1937

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INTRODUCTION

The question of safety provisions for workers in the building industry with reference to scaffolding and hoisting machinery was placed on the Agenda of the Twentieth Session of the International Labour Conference by decision of the Governing Body of the International Labour Office at its Sixty-ninth (January-February 1935) Session At the Twentieth Session of the Conference the question was the subject of a first discussion in accordance with the Standing Orders The Conference then had before it a preliminary Grey Report, prepared by the Office, which gave a survey of the laws and regulations in force in various countries respecting scaffolding and hoisting machinery used on buildings under construction and also contained a brief statistical study of the number and causes of accidents to building workers, an account of the organisation and powers of the building inspection services and some information as to the activity of employers' and workers' organisations in regard to the prevention of accidents The Report concluded with a list of points on which it was thought Governments might be consulted in preparation for the second discussion, together with the text of a Model Safety Code drawn up in collaboration with the Office by the Correspondence Committee on the Prevention of Accidents

After consideration of this Report the Conference decided to place on the Agenda of its Twenty-third Session the question of safety provisions for workers in the building industry with reference to scaffolding and hoisting machinery and also decided the points on which the Governments should be consulted for the purpose of preparing for the second discussion and final decision to be taken at that Session On this basis the Office framed a Questionnaire which was addressed to the Governments of the Members of the Organisation on 24 July 1936

The present Report has been drawn up on the basis of the replies of the Governments to this Questionnaire The replies received are reproduced in Chapter I Chapter II gives a comparative analysis of these replies In Chapter III will be found the

conclusions drawn from the comparative analysis contained in the previous chapter together with the texts of the proposals which the Office, on consideration of the replies, submits to the Conference as a basis for the second discussion of the question

When addressing the Questionnaire to Governments the Office requested them to be good enough to furnish their replies not later than 15 November 1936, so as to enable the present Report to be prepared and despatched to Governments in good time Most of the replies, however, were not received until some considerable time after that date

On 10 March 1937, the date at which this Report was made up, the Office had received replies from the following thirty-four Governments Australia (Federal Capital Territory, New South Wales, Queensland, Tasmania, Western Australia), Austria, Belgium, Bulgaria, Canada (Alberta, British Columbia, Manitoba, Ontario, Quebec, Saskatchewan), Chile, China, Denmark, Egypt, Estonia, Finland, Great Britain, Greece, Hungary, India, the Irish Free State, Japan, Latvia, the Netherlands, Norway, Poland, Sweden, Switzerland, the Union of South Africa, and the United States of America

In the event of further replies being received by the Office in the course of the next few weeks, they will be reproduced in a supplementary report

Geneva, *March 1937*

CHAPTER I

REPLIES OF THE GOVERNMENTS TO THE QUESTIONNAIRE

Two Canadian Provincial Governments (Alberta and British Columbia) and the Japanese Government did not furnish detailed replies to the Questionnaire The general statements made by these Governments are reproduced below

CANADA

Province of Alberta

In respect of safety provisions for workers in the building industry the outlined proposal appears to provide adequate safety provisions and, with a few slight amendments, Regulations made under the Workmen's Compensation Act would fully conform with this standard

Province of British Columbia

The Government of the Province of British Columbia endorse the Convention proposed

To a large extent, the provisions of the Convention referred to in the Questionnaire are already required by law in the Province of British Columbia, and the Government may safely express their endorsation of the code in its entirety

JAPAN

The Government is in favour of establishing safety provisions with reference to scaffolding and hoisting machinery for the protection of the workers in the building industry and has already made the employers establish such safety devices However, as regards the details mentioned in the Questionnaire, the Government is not prepared as yet to express an opinion

The detailed replies furnished by the other Governments are reproduced below in the alphabetical order of the countries, but subdivided according to the questions to which they relate For convenience of reference, the amendments to the draft Model Safety Code suggested by Governments in reply to Question 4 (ii) have been brought together and will be found reproduced, under the Rules to which they refer, at the end of this chapter

A. INTERNATIONAL SAFETY REGULATIONS

FORM OF THE REGULATIONS

1. Do you consider it desirable that the International Labour Conference should adopt international regulations in the form of a Draft Convention concerning the safety of workers in the building industry with reference to scaffolding and hoisting machinery ?

2. If the reply to Question 1 is in the affirmative, do you consider that the Draft Convention should

(*a*) contain detailed technical provisions, or

(*b*) contain only general provisions laying down principles and be completed by a Recommendation containing detailed technical provisions which would constitute a Model Safety Code ?

3 Failing regulations in the form of a Draft Convention, do you consider that the Conference should adopt a Recommendation constituting a Model Safety Code ?

AUSTRALIA

Federal Capital Territory

1 The reply is in the affirmative

2 (*a*) The reply is in the affirmative

3 The reply is in the affirmative

New South Wales

1 It is considered desirable that the International Labour Conference should adopt international regulations in the form of a Draft Convention concerning the safety of workers in the building industry with reference to scaffolding and hoisting machinery

2 (*a*) The Draft Convention should not contain detailed technical provisions but

(*b*) contain only general provisions laying down principles on which each Government would base its detailed technical safety code, having regard to the special character of building operations in its country

3 Failing regulations in the form of a Draft Convention, the Conference should adopt a recommendation constituting a Model Safety Code embodying principles only

Queensland

General Observations

The successful operation of " The Inspection of Scaffolding Acts ", also " The Inspection of Machinery Acts " of Queensland, in the safeguarding of workmen employed in the building industry, also of the general public, suggests that similar legislation is required in all countries subscribing to the proposed Safety Provisions and that the requirements of the respective Acts should form the basis and minimum requirements of such Safety Provisions

In this State *Inspectors of Scaffolding* are men who have had sound training as practical builders, having also a technical training sufficient to enable them to accurately check the strengths of materials and the designs of all scaffolding, also gear used in connection with same

Such inspectors are subjected to a qualifying, competitive examination on scaffolding and gear before entering the service of the Department

Working under the immediate jurisdiction of the Chief Inspector of Scaffolding, inspectors are required to inspect periodically, advise employers and licensed scaffolders, and generally enforce the requirements of the Acts and Regulations

Inspectors of Machinery appointed under " The Inspection of Machinery Acts " are men who have had not less than fifteen (15) years' experience, including apprenticeship, in general engineering, and who have a sound technical training

Before appointment they require to pass a qualifying, competitive examination on the technical and applied phases of engineering practice, including cranes, lifts, hoists, etc

Working under the immediate supervision of the Chief Inspector of Machinery, inspectors are required to inspect all boilers, cranes, lifts hoists and mechanical appliances used in the building industry

Inspectors of Scaffolding, also Inspectors of Machinery, are paid out of Consolidated Revenue and are not permitted to receive fees or payment of any nature They are full-time employees of the State

Both Scaffolding and Machinery Departments are under the one Chief Inspector and are under the control of The Honourable the Minister for Public Works of this State

In conclusion, it is suggested that some of the factors essential to the administration and enforcement of such a measure as the safety provisions for workers in the building industry are, briefly, as follows

(*a*) An Act or Acts requiring all scaffolding gear, and machinery, intended to be used in the building industry, to be in accordance with an approved design and standard, and inspected before being put into use, also periodically while in use

(*b*) Whole-time inspectors of scaffolding and/or machinery, having sound technical and practical training and empowered to effectively enforce the requirements of the Safety Provisions

(*c*) Licensed scaffolders who, by service and examination, have proved that they are skilled in the work of erecting, maintaining and/or demolishing scaffolding and gear

(*d*) All machinery, including hoisting appliances, required to be regularly inspected and have a certificate of inspection in force in connection with same

(*e*) Persons in charge of hoisting appliances operated by any source of power shall be the holders of certificates of competency obtained by examination and practical test, and all persons in charge of

any other machinery shall satisfy the inspector that they have sufficient knowledge of such machinery as to render them safe to operate same

(*f*) The subscription of all countries or States to a uniform and high standard of safety provisions, and a close co-operation of all subscribing States in the matter of periodically revising and improving the safety provisions

(*g*) Co-operation with Technical Standards Associations

(*h*) Co-operation and periodical conferences between inspecting authorities and representatives from State Departments of Public Works, architects, building trade employers, also employees, in an endeavour to obtain the maximum degree of safety for workmen, the general public and of property

1 The reply is in the affirmative

2 (*a*) The reply is in the affirmative

(*b*) The reply is in the negative

3 The reply is in the affirmative

Tasmania

1 The reply is in the affirmative

2 It is considered the Draft Convention should contain detailed technical provisions

3 The reply is in the affirmative

Western Australia

1 Yes, and should include all gear, and timbering in wells and under-pinning and excavations for buildings, also scaffolding on ships in dock, on bridges, tanks, etc

2 (*a*) The reply is in the affirmative

(*b*) The reply is in the negative

3 The reply is in the affirmative

AUSTRIA

1 The reply is in the affirmative

2 A Draft Convention with detailed provisions, as in (*a*), would be preferable

3 The reply is in the affirmative

BELGIUM

1 The reply is in the affirmative

2 (*a*) The reply is in the affirmative

(*b*) The reply is in the negative.

3 The reply is in the affirmative

Bulgaria

1 The reply is in the affirmative

2 (*a*) The reply is in the negative
(*b*) The reply is in the affirmative

3 The reply is in the affirmative

Canada

Province of Manitoba

1 The reply is in the affirmative

2 (*a*) The reply is in the affirmative

3 The reply is in the affirmative

Province of Ontario

1 The reply is in the affirmative

2 (*a*) and (*b*) The Government approve of (*a*) They consider that the Model Safety Code should be incorporated in the Draft Convention as a schedule

3 The reply is in the affirmative

Province of Quebec

1 The reply is in the affirmative

2 The reply is in the affirmative to (*b*) These provisions should be completed by a Recommendation the technical provisions of which would constitute a Model Safety Code

3 The reply is in the affirmative

Province of Saskatchewan

1 The reply is in the affirmative

2 (*a*) and (*b*) General provisions are preferable

3 The reply is in the affirmative

Chile

1 This is not only desirable but also necessary

2 (*a*) and (*b*) The Convention should contain general principles concerning safety in the building industry with reference to scaffolding and hoisting machinery The Recommendation should contain all the stipulations which are set out in the three Parts of the draft Model Safety Code It should prohibit the use of the suspended scaffolds referred to in Rule 10 of Part I and should stipulate that the platforms dealt with in Clause 2 of Rule 15 should have a width of at least 80 cm

3 (No reply is given)

CHINA

1 The reply is in the affirmative

2 The Draft Convention should contain only general provisions laying down principles and be completed by a Recommendation containing detailed technical provisions which would constitute a Model Safety Code

3 The reply is in the affirmative

DENMARK

1 In view of the considerable risk of accident revealed by the statistical data relating to the building industry, this question must be answered in the affirmative

2 The Draft Convention should undoubtedly not contain detailed technical provisions but only provisions laying down general principles so that the Convention would require States ratifying it to give effect to satisfactory safety regulations for workers in the building industry as regards scaffolding and hoisting machinery In the Government's opinion, the Convention should be completed by a Recommendation including detailed technical provisions in the form of a Model Safety Code It would be desirable to include in the Convention a provision to the effect that each of the States Members undertakes to make its national safety regulations correspond, so far as possible and taking into account all the local circumstances and methods of construction with the Model Code given in the Recommendation There should, of course, be nothing to prevent national regulations going farther than the Model Code

3 This question falls in view of the reply to Question 2

EGYPT

1 The reply is in the affirmative

2 (*b*) The Government are in favour of this proposal

3 The reply is in the affirmative

ESTONIA

1 The Government considers it desirable that the International Labour Conference should adopt international regulations in the form of a Draft Convention concerning the safety of workers in the building industry in general

2 (*a*) and (*b*) Apart, of course, from the standard Articles, the Draft Convention should contain only a single provision, requiring the States Members to deal with the question of the safety of workers in the building industry in their national laws or regulations Simultaneously with the adoption of this Draft Convention a Recommendation should be adopted containing detailed technical provisions which would constitute a Model Safety Code The Government favours this procedure as it would greatly facilitate the adoption of international regulations

3 If the International Labour Conference should not decide in favour of a Draft Convention, it would be desirable that it should adopt a Recommendation constituting a Model Safety Code

FINLAND

1, 2 and 3 In Finland fairly detailed regulations for the building industry were prescribed as long ago as 1927 These regulations have been found satisfactory in practice and it therefore seems desirable that international regulations on the subject should be adopted, the essential parts of which should take the form of a Draft Convention In view however, of the diversity in climate, materials and methods of construction and other circumstances in the various countries and in different parts of the world, the international regulations which are to have binding force should not enter too much into technical detail but should simply lay down the general rules necessary to ensure safety The obligatory regulations might be completed by an international Recommendation setting out the measures most appropriate for ensuring safety subject to modification where necessary The international regulations would thus consist of two parts, one part of the Model Safety Code would be included in the Convention and the other part in the Recommendation

GREAT BRITAIN

1 The reply is in the affirmative

2 (*a*) and (*b*) While it is undesirable that the Draft Convention should contain such detailed technical provisions as might make ratification difficult for a number of countries, it ought to contain sufficiently detailed provisions to ensure that its objects are achieved The Convention should accordingly contain provisions setting forth certain cardinal rules for safety in building In addition there should be a Recommendation embodying a Model Safety Code elaborating in more technical detail the rules in the Convention

3 The reply is in the affirmative

GREECE

1 The Government is of opinion that the international regulations on the safety of workers in the building industry should take the form of a Draft Convention

2 (*a*) The Draft Convention should not contain detailed provisions owing to the number of these

(*b*) It should contain general provisions laying down principles and be completed by a Recommendation containing detailed technical provisions which would constitute a Model Safety Code

3 The reply is in the affirmative

HUNGARY

1 The reply is in the affirmative

2 (*a*) The reply is in the negative

(*b*) Yes, the second procedure is preferable since the nature of the subject-matter of the Draft Convention does not admit of detailed

prescriptions The regulations to be applied would necessarily vary from one country to another in accordance with the differences in methods of building and have to be modified from time to time as required by circumstances National legislation on this subject is in fact limited to the laying down of general principles and to making provision for their detailed application by means of administrative regulations

3 The reply is in the affirmative

INDIA

1 Figures of accidents in the building industry in India as a whole are not available, but the Government have no reason to suppose that the number of such accidents is considerable This is probably due to the fact that except in the two great commercial centres of Calcutta and Bombay, buildings are of no great height, and in these centres large contractors, in their own interest and from motives of economy, use up-to-date steel scaffoldings which reduce risk to the life of the workers to a minimum Neither in the large cities, nor in the urban areas, however, does the industry possess even the rudiments of organisation, and there are, except for works executed for Government and under the supervision of the Public Works Department no codes regulating the construction of scaffolding, etc , at present in force There is no public demand for the framing of such rules or codes, and even in municipal areas there has been little attempt to insist upon regulations for the safety of scaffoldings which, outside the sphere of Government work, is a matter for regulation by municipal or other local authorities In these circumstances, the difficulties in the way of enforcing any safety provisions framed on the lines suggested will be almost insuperable In the unorganised state of the building industry, legislation to give effect to the provisions of the Model Safety Code could only be enforced by a corps of building inspectors whose cost would be a heavy burden on the finances of local bodies While, therefore, the Government of India consider the safety provisions laid down in the Draft Model Safety Code to be a useful guide, they will be unable to ensure their enforcement in India For these reasons they would strongly prefer the adoption of a Draft Recommendation to a Draft Convention If, however, a Draft Convention is adopted, they consider that it should be in the form recommended in part (*b*) of Question 2 of the questionnaire

2 See reply to Question 1

3 See reply to Question 1

IRISH FREE STATE

1 The reply is in the affirmative

2 (*a*) and (*b*) General provisions only States Members should be free to make their own detailed provisions

3 The reply is in the affirmative

LATVIA

1 The Government considers it desirable that the International Labour Conference should adopt international regulations in the form of a Draft Convention concerning the safety of workers in the building industry with reference to scaffolding and hoisting machinery

2 The Draft Convention should contain only general provisions laying down principles and be completed by a Recommendation containing detailed technical provisions which would constitute a Model Safety Code

3 No reply is given

NETHERLANDS

1 The reply is in the affirmative

2 The Government considers it desirable that the Draft Convention should include, in addition to general principles, provisions concerning such technical details as are capable of being dealt with on a uniform basis in international regulations and which are important from the point of view of the safety of the workers

In particular the Draft Convention should contain more detailed provisions regarding the construction and mechanism of hoisting machinery It would be useful for the manufacturers of such machinery if uniformity were established in the conditions laid down respecting it, since this would help to prevent a country in which the use of such machinery was forbidden on account of deficiencies in construction and mechanism from systematically exporting defective machinery

Various other detailed technical provisions might form the subject of a Recommendation

3 A Recommendation not linked up in any way with a Draft Convention would, in the opinion of the Netherlands Government, have little effective value

NORWAY

1 The reply is in the affirmative

2 In view of the differences in working conditions in the various countries the Draft Convention should contain only general principles referring to a Recommendation containing a Model Safety Code

3 The reply is in the affirmative

POLAND

1 The reply is in the affirmative

2 The Draft Convention should contain only general provisions laying down principles In view of the special nature of the problem it is necessary that the Draft Convention should be completed by a Recommendation, the detailed technical provisions of which would constitute a Model Safety Code

3 The reply is in the affirmative

SWEDEN

1 The reply is in the affirmative

2 (*a*) The reply is in the negative

(*b*) The reply is in the affirmative

3 The reply is in the affirmative

Switzerland

1 The Government considers that it would hardly be possible to adopt international regulations on the safety of workers in the building industry in the form of a Draft Convention It would probably be difficult to secure agreement on the content of a Convention since methods of construction differ greatly from one country to another Reference is made to the observations made in reply to Question 4 (11) (Bracket Scaffolds) (See page 72)

2 This question falls in view of the negative reply to Question 1 If, however, the majority of the Conference should decide in favour of a Draft Convention this should contain only provisions laying down general principles, and technical rules should be included in a Recommendation in the form of a Model Code

3 The reply is in the affirmative

Union of South Africa

1 No The peculiar conditions existing in the Union of South Africa render it impracticable for the present to prescribe uniform regulations governing workers in the building industry

2 Falls away

3 The reply is in the affirmative

United States of America

1 The reply is in the affirmative

2 (*a*) and (*b*) It would appear that the most practicable and feasible plan would be the adoption of a Draft Convention containing general provisions as to principles, policies, and practices, to which should be appended a Recommendation containing detailed and specific provisions constituting a Model Safety Code There was almost complete unanimity of opinion among committee members at the 1936 Session that it was impracticable to include in a Convention the numerous technical provisions inherent in a Safety Code This conclusion was prompted by a number of reasons among which are the greatly varying types of construction in different parts of the world, the equally variant materials in use and even the terminology itself

3 The reply is in the affirmative

CONTENT OF THE REGULATIONS

4. (*i*) Do you consider that whatever form is given to the international regulations their provisions should be based on the draft of a Model Safety Code prepared by the Correspondence Committee on Accident Prevention ?

(*ii*) What amendments, additions or deletions do you suggest should be made in this draft ?

(*iii*) If you are in favour of the proposal indicated in Question 2 (*b*), which of the provisions of the draft Model Safety Code do you consider should be included in the Draft Convention and which should be included in the supplementary Recommendation ?

AUSTRALIA

Federal Capital Territory

4 (i) The reply is in the affirmative

(ii) See pages 63-108

New South Wales

4 (i) It is considered that whatever form is given to the international regulations their provisions should be based on the draft of a Model Safety Code prepared by the Correspondence Committee on Accident Prevention

(ii) See pages 63-108

(iii) The whole of the Draft Model Code as amended herein should be included in the Draft Convention

Queensland

4 (*i*) The reply is in the affirmative

(ii) See the General Observations prefixed to the reply to Question 1 and pages 63-108

(iii) The Government consider that at least the whole should be included in the Draft Convention

Tasmania

4 (i) The reply is in the affirmative

(ii) No additions or deletions are suggested

(iii) See reply to Question 2

Western Australia

4 (i) The reply is in the affirmative

(ii) See pages 63-108

(iii) This question falls in view of the reply to Question 2 (*b*)

AUSTRIA

4 (i) The reply is in the affirmative

(ii) No amendments are suggested as being necessary

(iii) The question falls in view of the reply to Question 2

BELGIUM

4 (i) The reply is in the affirmative

(ii) See pages 63-108

BULGARIA

4 (i) The reply is in the affirmative

(ii) The Government is of opinion that the text of the Draft Model Code should serve as a basis for a Recommendation, subject to the condition that each country would have the right to make such modifications, additions or deletions in the text as it considered expedient for the purposes of application in the local circumstances of the country

For a suggested amendment to clause 1 of Rule 3 of the Draft Model Code see page 67

(iii) The Government considers that the Draft Convention should contain general provisions laying down principles to ensure the safety of workers in the building industry with reference to scaffolding and hoisting machinery

CANADA

Province of Manitoba

4 (i) Yes, or adopted by convention

(ii) and (iii) (No reply is given)

Province of Ontario

4 (i) The reply is in the affirmative

(ii) For remarks on the Draft Model Safety Code and amendments suggested by the Employers' group, see pages 63-108

Province of Quebec

4 (i) The reply is in the affirmative

(ii) (No reply is given)

(iii) The Province of Quebec has adopted the "Scaffolding Inspection Act", which deals with different types of scaffolding for the various kinds of work to be done on buildings [1]

Province of Saskatchewan

4 (i) The reply is in the affirmative

(ii) The Government does not desire at this time to make suggested amendments

(iii) (No reply is given)

[1] Copies of this Act accompanied the reply to the Questionnaire.

CHILE

4 (i) The reply is in the affirmative

(ii) See pages 63-108

(iii) The Draft Convention should contain all the general principles formulated in the Draft Model Safety Code and the supplementary Recommendation should give all the other provisions appearing in the Code

CHINA

4. (i) The reply is in the affirmative

(ii) The reply is in the negative

(iii) Only general rules should be included in the Draft Convention and all the detailed technical provisions should be included in the supplementary Recommendation

DENMARK

4 (i) The reply is in the affirmative

(ii) See pages 63-108

(iii) The Government is disposed to the view that none of the provisions of the Model Safety Code will be suitable for inclusion as they stand in the Draft Convention The text of the Draft Convention should certainly be of a more general character and should, for example, stipulate that each of the States ratifying the Convention undertakes to ensure the enforcement of measures concerning the construction, setting up, maintenance and utilisation of scaffolding and hoisting machinery used in the building industry designed to protect workers in the building industry as effectively as possible against the risks connected with scaffolding and hoisting machinery If the Convention is thus limited to a general obligation, all the provisions of the Model Code under consideration together with any amendments that may be adopted should then form the subject of a Recommendation

EGYPT

4 (i) The reply is in the affirmative

(ii) See pages 63-103

(iii) The Government consider that Rules 1, 2, 5, 7, 11, 12, 13, 14, 17, 20, 21 (paragraph 1), 22, 23, 32, 33, 34 might be included in the Draft Convention, the remaining provisions to be included in the supplementary Recommendations

ESTONIA

4 (i) The reply is in the affirmative

(ii) No modifications, additions or deletions are suggested

(iii) All the provisions of the Draft Model Code should be included in the Recommendation

FINLAND

4 The following rules of the Model Safety Code drawn up by the Correspondence Committee on the Prevention of Accidents might with

certain modifications be included in the international Convention Rules 1, 2, 5 (except clause 2) 6, 7, 11, 12, 21 (except clauses 2 and 3), 22, and 23 (except clause 8) The other rules of the Model Safety Code might form the subject of a Recommendation, which would allow more latitude for variations to take account of practice in the different countries

For the amendments proposed to the Model Safety Code see pages 63-108

GREAT BRITAIN

4 (i) The reply is in the affirmative

(ii) and (iii) For suggested amendments to the draft Model Safety Code see pages 63-108 The appendix below suggests provisions to be embodied in the Convention A number of the provisions in the Model Code follow closely provisions in the Code now in force in Great Britain and the revision of the latter Code is now under consideration The Government accordingly reserves the right to propose other amendments in the Model Code at the Twenty-third Session of the Conference

APPENDIX

Suggested Provisions to be embodied in Convention

Note — References are inserted to the suggested Draft Model Rules for giving effect to these provisions

Part I — Scaffolds

(1) Suitable scaffolding shall be provided for workmen for all work that cannot be safely done from a ladder or by other means *Rule 1 (1)*

(2) A scaffold shall not be constructed or substantially altered except (i) under the supervision of a competent and responsible person, and (ii) as far as possible by skilled and experienced workers *Rule 1 (2)*

(3) All scaffolding and appliances connected therewith and all ladders shall be of sound material and of adequate strength having regard to the loads and strains to which they will be subjected *Rule 1 (3)*

(4) On each occasion before erection, scaffold parts shall be examined by experienced persons and shall not be used unless in every respect they possess the qualities required for their purpose *Rule 1 (4)*

(5) On each occasion before use ropes shall be examined by qualified persons, and any rope that is defective shall not be used *Rule 1 (4)*

(6) Materials used in the construction of scaffolds shall be stored under good conditions apart from any material unsuitable for scaffolding *Rule 1 (5)*

(7) Sufficient material shall be provided for, and shall be used in, the construction of scaffolds *Rule 2*

(8) Scaffolds shall be maintained in good and proper condition and every part shall be kept fixed or secured to prevent accidental displacement *Rule 2*

(9) Pole, gabbard or ladder scaffolds shall be sufficiently and properly braced, in every case the scaffold — unless it is an independent scaffold — shall be rigidly connected with the building at suitable vertical and horizontal distances *Rule 5 (1)*

(10) Cantilever or jib scaffolding shall be securely fixed and anchored from the inside The outriggers shall be of adequate length and cross-section to ensure its solidity and stability *Rule 6*

(11) Suspended scaffolds shall have proper means of suspension and anchorage, which shall be of suitable materials and adequate strength, and the platforms shall be provided on all sides with guard-rails and toe-boards so as to prevent the falls of persons, tools or materials *Rules 8, 9, 10 and 15 (10)*

(12) Scaffolds shall not be overloaded and so far as practicable the load shall be evenly distributed *Rule 11*

(13) Scaffolds shall be inspected by a competent person at least once a week and also before work is resumed after any material interruption *Rule 13*

(14) Working platforms, gangways and staircases shall be kept free from any unnecessary obstruction *Rule 17 (1)*

(15) Working platforms and gangways shall be so constructed that the boards cannot be accidentally displaced or sag unduly or unequally *Rules 15 (7) and 16 (1)*

(16) Working platforms, gangways and staircases shall be so constructed and maintained as not to produce unnecessary risk of persons tripping or slipping *Rules 15 (5), 16 (1) and 17 (1)*

(17) As respects working platforms, gangways, working places and stairs at more than a certain height from the ground or floor

(*a*) Every outside working platform and every gangway shall be closely boarded *Rules 15 (1) and 16 (1)*

(*b*) Every working platform and gangway shall have adequate width *Rules 15 (2) and 16 (1)*

(*c*) Every working platform, gangway, working place and staircase shall be provided with suitable guard-rails and toe-boards *Rules 15 (9) and 16 (2)*

(18) Every ladder used as a means of communication shall be securely fixed and of such length as to provide secure handhold and foothold at every position at which it is used *Rule 19*

(19) Every opening left in the floor of a building or in a working platform for an elevator-shaft or stairway or for the hoisting of material or for access by workmen or for any other purpose shall be provided with suitable guard-rails and toe-boards or other efficient means to prevent the fall of persons or articles, except for the time and to the extent required to allow the access of persons or the transport or shifting of materials *Rule 20*

(20) No person shall be employed on a roof on which there is a special risk of falling more than a certain height, unless efficient precautions are taken to prevent the fall of persons or materials *Rule 21*

(21) Safe means of access shall be provided to all working platforms and other working places *(Proposed addition to Rule 22)*

(22) Any part of the premises where any person at work or passing would be liable to be struck by materials, tools or other articles falling from more than a certain height shall be covered in such a manner as to protect such persons, unless other effective steps are taken to prevent falls of objects from such height *Rule 22 (1)*

(23) Every place to which access is required for any person and every means of approach thereto shall be efficiently lighted *Rule 22 (2)*

(24) Special precautions shall be prescribed to prevent danger from electrical equipment *Rule 22 (3)*

(25) Boards or other timber with projecting nails shall not be allowed to remain in any place where persons are liable to be injured by them *Rule 22 (4)*

(26) No materials on the site shall be so stacked or placed as to cause danger to any person *(Proposed addition to Rule 22)*

Part II — Hoisting Appliances

(27) Hoisting machines and tackle, including their attachments, anchorages and supports, shall

(*a*) be of good mechanical construction, sound material and adequate strength and free from patent defect,

(*b*) be kept in good repair and in good working order

(*c*) be periodically examined in position *Rule 23 (1)*

(28) Adequate steps shall be taken to ascertain the safe working load of every hoisting machine *Rule 26 (5) as to cranes*

(29) Every hoisting machine shall have the safe working load plainly marked upon it *Rules 23 (2) and 30 (15)*

(30) No part of any hoisting machine or tackle shall be loaded beyond the safe working load except for the purpose of testing *Rule 23 (3) and proposed addition to 25 (2)*

(31) Motors, gearing, transmissions, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards *Rule 23 (7)*

(32) Adequate steps shall be taken to ascertain the safe working load of every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering or as a means of suspension and all such gear shall be plainly marked with the safe working load *Rule 25 (2)*

(33) Every chain, ring, hook, shackle and swivel used in hoisting or lowering or as means of suspension shall be periodically examined *Rule 25 (5)*

(34) Every rope used in hoisting or lowering or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect

(35) Special measures shall be prescribed to prevent loads or parts of loads becoming accidentally displaced from a hoisting machine *Rule 25 (3) and (4) and parts of Rule 31*

(36) Secure fencing and safe means of access shall be provided for the platforms used by the driver, operators, and signalmen of every crane *Rule 26 (1)*

(37) On every stage, gantry or other place on which a crane moves, an unobstructed passageway of adequate width shall be constantly maintained, except where and when steps are taken to prevent the access of persons *Rule 26 (3)*

(38) The maximum radius at which the jib may be worked shall be clearly indicated on every derrick crane *Rule 27 (1)*

(39) Adequate means shall be provided to enable the driver or person operating any jib crane to ensure that the load being moved at any inclination of the jib does not exceed the safe working load for that inclination *Rule 28*

(40) Hoist ways shall be provided on ground level, and at every other level at which there is access to the hoistway, with secure fencing or gates on every side at which there is danger of persons coming into contact with any moving part of the hoist or falling down the hoistway *Rule 30 (1)*

Part III — Safety Equipment and First Aid

(41) Where necessary the employer shall provide the workmen with a sufficient number of goggles and safety-belts, the latter to have life-lines of sufficient length and strength *Rule 32*

(42) When work is carried on above rivers, ponds, or canals, the employer shall take all the necessary measures and furnish all the necessary means for the prompt rescue of any worker who may fall into the water *Rule 33*

(43) Adequate provision shall be made to enable first aid to be rendered promptly in the event of injury being sustained by any person *Rule 34*

Part IV — Responsibility for Compliance

(44) It shall be the duty of the employer to comply with the foregoing provisions, and every person employed shall co-operate with the employer in so doing and shall report to the employer or foreman any defect he may discover in the plant or appliances

Greece

4 (i) Yes, in Greece the labour inspection service has already prepared draft regulations which will shortly be issued as a Royal Decree and which contain all the rules of security required under the system of construction followed by contractors in Greece

(ii) No alterations suggested

(iii) The Draft Convention should contain the following rules

(1) General rules (1 to 5),
(2) Supply and use of material,
(11) Transport and storage of material on scaffolds, distribution of the load,
(12) Installation of lifting gear on scaffolds,
(13) Periodic inspection of scaffolds,
(14) Use of scaffolds constructed by other contractors,
(21) Roof work (1 to 3),
(22) Miscellaneous rules,
(32) Safety equipment,
(33) Rescue equipment,
(34) First-aid equipment

All the other rules should be included in the supplementary Recommendation with the exception, however, of Rule 23 (5 and 6), Rule 25 (5), Rule 26 (5) and Rule 30 (15), (*a*), (*b*) and (*c*), which should be included in the Draft Convention

Hungary

4 (i) The reply is in the affirmative

(ii) See pages 63-108

The Draft Model Safety Code drawn up by the Committee on Accident Prevention constitutes a suitable body of regulations for building work executed above ground level Modifications and additions would, of course, be necessary to take account of the special circumstances in each country, but it would be more convenient to leave the consideration of the details of such amendments, additions and deletions for the second discussion of the draft

Although the greater part of the rules in the Model Code apply also to work at ground level the question arises as to whether special rules for such work are not also necessary

(iii) The provisions which lay down general rules should be included in the Draft Convention while the provisions relating to details, and in particular all the provisions of a technical character, contained in the Model Code should be included in the supplementary Recommendation

India

4 (i) and (ii) As already stated, in so far as the draft of a Model Safety Code is regarded as a guide it will be useful, but the specifications laid down are far in advance of what can be achieved in all but the most important works In small works and in out of the way places and the bulk of the building work in India outside the great cities falls under this description the expense involved would be unjustifiable

(iii) The Government, for the reasons already explained, do not favour a Draft Convention

Irish Free State

4 (i) The reply is in the affirmative

(ii) As a model Safety Code, no alteration is suggested

(iii) The general provisions should be included in the Draft Convention, and the detailed technical provisions in the supplementary Recommendation

States Members should be free to frame their regulations in accordance with local practice and circumstances

Latvia

4 (i) The provisions of the international regulations should be based on the Draft Model Safety Code prepared by the Correspondence Committee on Accident Prevention

(ii) and (iii) The general provisions of the Draft Model Code should be included in the Draft Convention and the technical provisions in a complementary Recommendation

Netherlands

4 (i) The reply is in the affirmative

(ii) See pages 63-108

(iii) All the provisions of the Model Code might be included in a Recommendation with the exception of Article 23, paragraphs 1(*a*), 2 and 7, Article 24, Article 25, paragraph 1, and Article 28 As it is of great importance that the provisions mentioned above should be applied internationally, it is desirable that they should form part of the Draft Convention

Norway

4 (i) The reply is in the affirmative

(ii) (No reply is given)

(iii) The general provisions concerning scaffolds and hoisting appliances in the Draft Model Code should be incorporated in the Convention, but the special rules should be left in the Model Code

Poland

4 (i) The reply is in the affirmative

(ii) While not suggesting possible modifications at the moment the Government considers it to be necessary that the provisions of the Model Code should take account of the differences in the conditions in the building industry in the various countries (differences in climate, methods and conditions of working, organisation and methods of control exercised by the inspecting authorities, etc) so as to secure a text capable of application in all countries

(iii) The general character of the Draft Convention renders it undesirable to include in the text of the Convention any of the *detailed* provisions which appear in the Draft Model Safety Code The Draft Convention should, however, lay down the general principles of safety in the building industry which would be elaborated in detail in the Recommendation

Sweden

4 (i) The provisions of regulations should be based on the text of the Draft Model Safety Code, but that text should be modified after consideration of the amendments suggested later Consideration might be given to the question whether certain of the provisions of the Model Code should not be supplemented by drawings in order to make them more readily understood

(ii) See pages 63-108

(iii) Detailed technical provisions of a binding character cannot be included in the Draft Convention by reason of the great differences in the conditions of the building industry in different countries The Draft Convention should contain general provisions laying down principles which, in the cases dealt with in the Model Code, would make it obligatory to take safety measures of an appropriate character and at least as effective as those given in the Model Code

Switzerland

4 (i) The Government is of opinion that the Draft Model Code prepared by the Correspondence Committee may very well serve as the basis of a Recommendation but not of a Convention

(ii) See pages 63-108

(iii) There can be no question of dividing the provisions of the Model Code so as to include some of them in a Draft Convention and others only in a Recommendation Any Draft Convention that might be adopted should contain only a few provisions of a general character, stipulating that the limits of load allowed for scaffolds and hoisting appliances should not be exceeded and that all measures shown by experience to be necessary should be taken to prevent accidents due to slipping on scaffolds, to falls of persons or things from scaffolds, to the falling of parts of the scaffolds themselves, to the use of defective hoisting appliances, etc

Union of South Africa

4 A Recommendation based on the Draft Model Safety Code prepared by the Correspondence Committee on Accident Prevention is favoured

United States of America

4 (i) The reply is in the affirmative

(ii) If the draft is to be in the form of a Model Safety Code it can be amplified and extended in certain details under advice of technicians or building experts

(iii) General rules of Part I, provisions for periodic inspection, provision as to safety, rescue and first-aid equipment set forth in Part III In addition the Government favour including in the Draft Convention further items fixing the responsibility of employers in respect of training and instruction of workers as to hazards and safe work practices Also the Government favour the obligatory reporting of all accidents on uniform schedules to the competent authority in each jurisdiction The other detailed specifications in the existing proposed Code should be included in the recommendations constituting a Model Safety Code

SCOPE OF THE REGULATIONS

5. Do you consider that the international regulations should apply

(*a*) to the construction of all types of buildings ?

(*b*) to work in connection with the repair, maintenance, demolition, etc., of existing buildings ?

6 (*i*) Do you consider that the competent authority in each country should be authorised in certain circumstances and having regard to the conditions in which the work has to be carried out to exclude from the scope of the international regulations certain classes of buildings or kinds of operations ?

(*ii*) If the reply is in the affirmative, in what cases do you consider that such exceptions should be allowed ?

(*iii*) Do you consider that before deciding to make use of this power of exception the competent authority should be required to consult the organisations of employers and workers concerned ?

AUSTRALIA

Federal Capital Territory

5 (*a*) and (*b*) The reply is in the affirmative

6 (i) The reply is in the negative

New South Wales

5 It is considered that the international regulations should apply

(*a*) to the construction of all types of buildings and structures, e g. bridges, steel towers etc ,

(*b*) to work in connection with the repair, maintenance, painting, demolition, etc , of existing buildings and structures

6 It is not considered that the competent authority in each country should exclude from the scope of the international regulations certain classes of buildings or kinds of operations

Queensland

5 (*a*) Yes, to *all* types of buildings

(*b*) Yes, to *all* repair, maintenance and demolition of existing buildings

6 (i) The reply is in the negative

Tasmania

5 (*a*) The reply is in the negative

(*b*) The reply is in the negative

6 (i) The reply is in the affirmative

(ii) Minor repair work and certain types of buildings such as buildings consisting of one or two storeys, having due regard to the conditions under which the work is executed

(iii) The reply is in the affirmative

Western Australia

5 (*a*) Yes, with the exception of buildings erected by the owner himself without employing labour

(*b*) Yes, especially in the case of demolition of old buildings

6 (i) The reply is in the negative

AUSTRIA

5 (*a*) and (*b*) The replies are in the affirmative

6 (i) The reply is in the negative

(ii) and (iii) These questions fall in view of the reply to (i)

BELGIUM

5 (*a*) The reply is in the affirmative

(*b*) The reply is in the affirmative

6 (i) The reply is in the negative

BULGARIA

5 (*a*) and (*b*) The replies are in the affirmative

6 (i) The reply is in the affirmative

(ii) These cases should not be specified either in the Draft Convention or in the Recommendation, but should be left to the discretion of the competent authority according to the circumstances

(iii) The reply is in the affirmative

CANADA

Province of Manitoba

5 (*a*) and (*b*) The reply is in the affirmative

6 (i) The reply is in the affirmative

(ii) By Government permit

(iii) The reply is in the affirmative

Province of Ontario

5 (*a*) The reply is in the affirmative

(*b*) The reply is in the affirmative

6 (i) The reply is in the affirmative

(ii) No reply is given

(iii) The reply is in the affirmative

Province of Quebec

5 (*a*) The reply is in the affirmative

(*b*) The reply is in the affirmative

6 (i) The reply is in the affirmative The competent authority in each country should be authorised, in certain circumstances and having regard to the conditions in which the work has to be carried out (climatic conditions, for example), to exclude from the scope of the regulations certain classes of buildings or kinds of operations

(ii) The Government suggests that provision should be made for exceptions in the case of farmers

(iii) The Government does not consider that the competent authority should be required, if it should decide to make use of the power of exception, to consult beforehand the organisations of employers and workers concerned The matter should be left to the discretion of the competent authority

Province of Saskatchewan

5 (*a*) and (*b*) International regulations should not apply to buildings not more than twenty feet in height, nor to farm buildings, nor to any work being done upon a building or excavation by the owner or occupant thereof in person

6 (i) The reply is in the affirmative

(ii) See reply to Question 5

(iii) The reply is in the affirmative

Chile

5 (*a*) and (*b*) The reply is in the affirmative

6 The reply is in the negative

China

5 The scope of the regulations should be left to each country to decide

6 See reply to Question 5

Denmark

5 The international regulations should apply to the construction of new buildings of all types and also to work in connection with the repair, maintenance, demolition, etc , of existing buildings

The General Directorate of the Labour and Factory Inspection Service raises the question whether and to what extent similar provisions should be applied to constructional work in general, for example to the construction of bridges, chimney stacks, viaducts, etc

6 If the Convention authorises the exclusion of certain classes of buildings or kinds of operations from the scope of the regulations to which course the Government is not disposed to raise any immediate

objection the Convention should require the competent authority to consult the organisations of employers and workers concerned in respect of this general power of exemption On the other hand, it would be an unnecessary complication if a similar obligation were imposed in respect of purely individual exceptions

Egypt

5 (*a*) Yes, with the exception of buildings not exceeding one storey or six metres in height

(*b*) The reply is in the affirmative

6 (i) The reply is in the affirmative

(ii) The cases regarding which the Government consider that such exceptions could be allowed are

(1) Farm buildings

(2) Building operations on which less than six persons are employed

(3) Any other case in which the competent authority of each country is satisfied that any of the requirements of the regulations could be relaxed without danger to the persons employed

Estonia

5 (*a*) and (*b*) The replies are in the affirmative

6 (i) Since it is always possible that unforeseen difficulties may be encountered in the application of the proposed regulations, the Government considers that the competent authority in each country should be authorised to exclude certain classes of buildings or kinds of work from the scope of the regulations, especially in view of the fact that the regulations are extremely detailed

(ii) In the Government's view it would be impossible to find a general formula for this purpose which would be sufficiently flexible, and if the method of listing particular cases for which the power of exception would be allowed were adopted, the Draft Convention would be overloaded while there would still remain a risk that cases of some importance to particular countries had been omitted

(iii) The reply is in the affirmative

Finland

5 and 6 The regulations might apply to the construction of buildings of all kinds and, in addition to the construction of new buildings, to the repair, maintenance and demolition of existing buildings The authorities should, however have the right to exclude from the scope of the regulations work on which application of the safety regulations is not necessary As examples of the kind of work to be excluded, mention may be made of one-storey houses and out-offices in the country and of building work on which only members of the builder's family are employed without any outside labour The necessity for authorising certain exceptions might be avoided if, when the Convention is being drafted, certain specified kinds of work in which the danger of accident is not serious were excluded from the scope of the obligatory regulations

Consultation with the organisations of employers and workers should not be required before exceptions are granted, since for technical reasons this might lead to difficulties In the case of important exceptions, an appropriate expert body on which employers and workers would be represented might be consulted

GREAT BRITAIN

5 (*a*) and (*b*) The reply is in the affirmative

6 (i) The reply is in the affirmative

(ii) The precise definition of cases would have to be left to the competent authority to be decided in the light of local building practice, and the need for exceptions must obviously depend on what safety requirements are included in the Convention itself, but broadly speaking exceptions might be allowed for the construction of small, low buildings where it would be unnecessary to enforce the legal requirements in full, and for minor repair and maintenance operations not involving serious risk

(iii) Yes, where the power is exercisable by administrative order

GREECE

5 (*a*) and (*b*) Yes, under a Decree which will shortly be issued safety regulations are required to be observed by all contractors, architects or engineers engaging in work of construction, repair, decoration, and painting, and in all kinds of constructional work including metal construction work, ship-building, and electrical installation

6 (i), (ii) and (iii) The rules for the safety of workers should be observed in all cases

HUNGARY

5 (*a*) and (*b*) The replies are in the affirmative

6 (i) The reply is in the affirmative

(ii) It would be necessary to make exceptions in respect of

one-storey buildings, unless the height of the walls exceeds the height of a storey owing to the slope of the ground,

work on the repair and demolition of the walls of buildings referred to above,

building work not coming within the classes specified above but subject to special regulations (tunnels, dams, bridges, factory chimneys, etc),

military works and urgent repair work in cases of *force majeure*

(iii) The reply is in the affirmative

INDIA

5 In conditions existing in India the regulations could not be applied in practice wholly either to (*a*) or (*b*)

6 If a Draft Convention is passed the competent authority should be allowed to exclude classes of buildings or kinds of operations to which in practice the regulations cannot be made applicable

Irish Free State

5 (*a*) and (*b*) The reply is in the affirmative

6 (i) The reply is in the affirmative

(ii) and (iii) Decisions should be taken only after consultation with representatives of employers and workers

Latvia

5 The international regulations should leave to national legislation the determination (*a*) of the kind of buildings and (*b*) of the kind of work in connection with existing buildings

6 (i) The reply is in the affirmative

(ii) The classes of buildings or kinds of operations to be excluded from the scope of the international regulations should be left to the discretion of the competent authority in each country

(iii) Before making use of this power of exception the competent authority should be required to consult beforehand the organisations of employers and workers concerned

Netherlands

5 (*a*) and (*b*) The reply is in the affirmative

6 (i) The reply is in the affirmative subject to the observations made in the reply to (ii)

(ii) From the technical point of view of safety there is no reason for excluding any special class of building work A limitation of the scope of the Convention may, however, be necessary having regard to the means available for ensuring the enforcement of the requirements prescribed

For this reason it will be desirable in the case of the Netherlands to provide for an exception in respect of building work on which less than five persons are ordinarily employed and where no motive power is utilised This would be in conformity with the terms of Article 1, paragraph 1, of the Safety Act (Law of 20 July 1895, Bulletin of Laws No 137, published in the Year-book of Labour Legislation, Belgian "Office du Travail", Years 1914-1918, Volume IV)

(iii) The Government considers that consultation of the organisations of employers and workers concerned is not required in the event of the exception indicated in reply to (ii) being made

Norway

5 (*a*) The reply is in the affirmative

(*b*) The reply is in the affirmative

6 (i) The reply is in the affirmative.

(ii) Exceptions should be allowed for small buildings and repair work which is considered to involve no special risk for the workers

(iii) This should be the general rule; it should not be required, however, in the case of small buildings in rural areas

Poland

5 The reply is in the affirmative

6 The reply is in the negative

Sweden

5 (*a*) and (*b*) The replies are in the affirmative

6 (i) and (ii) General exceptions should be avoided

(iii) The reply is in the affirmative

Switzerland

5 (*a*) and (*b*) The reply is in the affirmative

6 (i) If the regulations take the form only of a Recommendation the competent authority does not need any special authorisation in order to allow exceptions

(ii) This question falls

(iii) The procedure suggested would be much too complicated The authorities responsible for enforcement must take the responsibility for exceptions

Union of South Africa

5 The Recommendation should apply both to the construction and to the repair, maintenance, and demolition of buildings

6 Falls away

United States of America

5 Available statistics do not indicate that scaffolding and ladder hazards are largely confined to taller buildings. Hence, the Government favour the application of regulations to all types of buildings, including also work in connection with repair, maintenance, and demolition of existing buildings Accident insurance rates in this country indicate that the hazard in repairing and demolition of buildings exceeds in many instances the hazard in new construction

6 (i) If the regulations are in the form of a Convention including only general principles there would seem to be no compelling reason for permitting exemptions or exclusions in respect of certain classes of buildings or kinds of operations The principal hardship encountered in compliance would be in respect of the detailed specifications in the recommended Model Safety Code The several countries could give consideration to the matter of variation when adopting wholly or in part the Model Code provisions There may be conditions in various countries which require easement of application of general principles under certain conditions and in certain classes of operations If such is found desirable the United States would favour that such an exemption be limited to buildings not exceeding two storeys

(ii) See reply to Question 6 (i)

(iii) The reply is in the affirmative

MEASURES FOR ENFORCEMENT AND SUPERVISION

Obligations on Employers

7. (*i*) Do you consider that the international regulations should provide that employers should be required

(*a*) to bring the regulations to the notice of the persons concerned by the posting up of notices on the building site or by any other means;

(*b*) to issue special instructions to workers employed on particularly dangerous jobs;

(*c*) to arrange for special supervision of such jobs ?

(*ii*) Do you suggest any other measures ?

AUSTRALIA

Federal Capital Territory

7 (i) (*a*) (*b*), and (*c*) The reply is in the affirmative

New South Wales

7 (i) It is considered that the international regulations should provide that employers be required

(*a*) to bring the Government regulations to the notice of the persons concerned by the posting up of notices on the building site,

(*b*) to issue special instructions to workers employed on particularly dangerous jobs;

(*c*) to arrange for the supervision of such jobs by foremen with a special knowledge of the requirements of the regulations

(ii) It is suggested that workers should periodically be given talks or lectures on safety provisions

Queensland

7 (i) (*a*), (*b*) and (*c*) The reply is in the affirmative

(ii) By a system of inspectors appointed under an Act of Parliament, the examination of scaffolders and issue of licences to same, under such Act, formation of workmen's safety committees on each building site

Tasmania

7 (i) (*a*), (*b*) and (*c*) The replies are in the affirmative

(ii) The reply is in the negative

Western Australia

7 (i) (*a*), (*b*) and (*c*) The reply is in the affirmative

(ii) On large and dangerous jobs a steward should be appointed by the employer to see that safety provisions are carried out

AUSTRIA

7 (i) (*a*) Employers should be required to post or hang up on the building site notices in durable form giving relevant extracts from the safety regulations

(*b*) The reply is in the affirmative

(*c*) The reply is in the affirmative

(ii) Employers should be required to appoint a person specially trained for and familiar with the work, for the purpose of supervision on the building site

BELGIUM

7 (i) (*a*), (*b*) and (*c*) The reply is in the affirmative

(ii) The reply is in the negative

BULGARIA

7 (i) (*a*), (*b*) and (*c*) The replies are in the affirmative

(ii) The reply is in the negative

CANADA

Province of Manitoba

7 (i) (*a*), (*b*) and (*c*) The reply is in the affirmative

(ii) Yes, medical examination of workmen on very dangerous jobs.

Province of Ontario

7 (i) (*a*), (*b*) and (*c*) Yes, the Government consider that employers should be required to post on the building site notices regarding the regulations and on particularly dangerous jobs to issue special instructions to workers and arrange for special supervision of such jobs

(ii) The reply is in the negative

Province of Quebec

7 (i) (*a*) The reply is in the affirmative

(*b*) The reply is in the affirmative Special instructions should be given to workers employed on jobs recognised as dangerous

(*c*) The reply is in the affirmative The foreman should exercise special supervision over such jobs

(ii) The reply is in the negative

Province of Saskatchewan

7 (i) (*a*), (*b*) and (*c*) The reply is in the affirmative

CHILE

7 (i) (*a*), (*b*) and (*c*) The reply is in the affirmative

(ii) Yes Employers should be forbidden to employ on such work any worker who does not possess the physical and psychological qualifications necessary

China

7 (i) The international regulations should contain the provisions enumerated in the Questionnaire

(ii) The reply is in the negative

Denmark

7 (*a*), (*b*) and (*c*) Yes, it would also certainly be desirable for special instructions to be given to young workers under eighteen years of age whether or not they are employed on particularly dangerous jobs

Egypt

7 (i) The reply is in the affirmative

(*a*) Yes But the Government suggest that only a relevant extract of the regulations should be posted up on the building site in a conspicuous place where it may be conveniently read, the extract to be in legible characters

(*b*) and (*c*) The reply is in the affirmative

(ii) The Government further suggest that a printed copy of the regulations should be given by the employer whenever workmen ask for it

Estonia

7 (i) (*a*), (*b*) and (*c*) If the international regulations are identical with the draft Model Safety Code their length alone would make it impossible to post them up on the site, especially as it is proposed that the regulations should apply also to repair, maintenance and demolition work, etc The employer would have considerable difficulty in finding a suitable place to put the regulations It would seem preferable to limit the obligation to the issuing of special instructions to workers employed on particularly dangerous jobs and to the organisation of special supervision for such jobs

Finland

7 The necessary regulations should be brought to the notice of those concerned on the building site, as is customary in Finland On particularly dangerous jobs special instructions should be given and special supervision arranged in collaboration with the Labour Department

Great Britain

7 (i) (*a*) The reply is in the affirmative

(*b*) and (*c*) It would be difficult to decide what are 'particularly dangerous jobs", and if special instructions had to be issued in such cases there is a danger that this might lead to carelessness and failure to take desirable precautions on other jobs It would seem better to require employers to appoint to supervise the operations a person or persons competent for the purpose and experienced in the class of work being undertaken

(ii) See concluding paragraphs of Appendices I and II No further suggestion

Greece

7 (i) (*a*), (*b*) and (*c*) The reply is in the affirmative

(ii) The reply is in the negative

Hungary

7 (i) (*a*) The reply is in the affirmative

(*b*) The reply is in the affirmative

(*c*) Yes, it would, for example, be useful to stipulate that before the erection of scaffolding for special purposes or of a kind different from the usual standard type plans and detailed calculations should be submitted to and approved by the competent authority

(ii) Provisions should be made for the infliction of penalties and the requirement should be added that dangerous jobs should be entrusted only to persons fit for the particular kind of work

India

7 (i) (*a*) and (*b*) There is no objection to these provisions, but in India owing to illiteracy of the workers the notice and instructions will not always be observed

(*c*) This would be impracticable in most cases

(ii) The reply is in the negative

Irish Free State

7 (i) (*a*) The reply is in the affirmative

(*b*) and (*c*) Such provisions should be included in a Recommendation

(ii) The reply is in the negative

Latvia

7 (i) The Government considers it necessary to include in the national regulations a provision requiring employers

(*a*) to bring the regulations to the notice of the persons concerned by the posting up of notices on the building site,

(*b*) to issue special instructions to workers employed on particularly dangerous jobs, and

(*c*) to organise special supervision of such jobs.

Netherlands

7 (i) (*a*) This matter is considered to be of relatively little importance

(*b*) The reply is in the affirmative

(*c*) The reply is in the affirmative in respect of jobs mentioned under (*b*) which exceed a certain size

(ii) The reply is in the negative

NORWAY

7 (i) (*a*) The reply is in the affirmative

(*b*) The reply is in the affirmative

(*c*) Special supervision should be arranged for to the extent required by the importance of the job and the local working conditions

POLAND

7 (i) The reply is in the affirmative

(ii) No reply is given

SWEDEN

7 (i) (*a*), (*b*) and (*c*) The replies are in the affirmative

(ii) The reply is in the negative

SWITZERLAND

7 (i) (*a*), (*b*) and (*c*) The reply is in the affirmative

(ii) The reply is in the negative

UNION OF SOUTH AFRICA

7 Falls away

UNITED STATES OF AMERICA

7 (i) (*a*), (*b*) and (*c*) As indicated in the answer to Question 4, the Government favour a provision in the Convention requiring special instruction to workers employed on dangerous jobs, and the Government also favour an obligatory requirement for special safety supervision on jobs, and including also a requirement to bring existing regulations to the notice of all persons on the building or construction premises

(ii) Inasmuch as safety depends largely upon expert and constant supervision the Government would emphasise this requirement

Obligations on Other Persons

8. (*i*) Do you consider it desirable that certain obligations should be imposed on any other persons who may be engaged in any capacity in or about the works ?

(*ii*) If so, what obligations do you suggest should be imposed ?

AUSTRALIA

Federal Capital Territory

8 (i) The reply is in the affirmative

(ii) (No reply is given)

New South Wales

8 (i) and (ii) At all times it should be the duty and responsibility of the general foreman or supervisor in charge of a work or a section of the work to see that the requirements of the regulations are observed

Queensland

8 (i) The reply is in the affirmative

(ii) Upon the inspectors appointed by the inspecting authority to see that both employers and workmen strictly observe the requirements of the safety provisions

The licensed scaffolder to erect and maintain or demolish all scaffolding and gear in strict conformity with the safety provisions

The crane drivers and dogmen to see that all hoisting appliances and gear under their charge are at all times in good order

In addition the employer and his foreman should be held responsible for a strict observance, at all times, of the safety provisions

Any workman who wilfully or negligently removes or damages any safeguard or safety appliance and does not take immediate steps to have same replaced or renewed, should in some measure be held responsible

Tasmania

8 (i) and (ii) It is considered that this principle might be adopted, the practical application thereof being left to the discretion of the competent authorities

Western Australia

8 (i) The reply is in the affirmative

(ii) Make it obligatory for the person in charge of the work to report all defects to the owner or contractor

Austria

8 (i) The reply is in the affirmative

(ii) Such persons should be required to take note of the extracts from the regulations posted or hung up on the site and to comply with any safety regulations affecting them

Belgium

8 (i) The reply is in the negative

Bulgaria

8 (i) and (ii) Apart from the owner, no person not employed in direct connection with the work on the scaffolding should be allowed free access to and movement about the site

Canada

Province of Manitoba

8 (i) The reply is in the affirmative

(ii) On all large and dangerous jobs, special supervision to prevent accidents

Province of Ontario

8 (i) and (ii) Yes, such persons should be warned of the dangers and be required to observe certain precautions

Province of Quebec

8 (i) The reply is in the negative The Government considers that the employer is under sufficient obligations in respect of his employees without having to undertake further obligations in respect of persons who may have to enter on the site for the purpose of delivering materials or otherwise but not the purpose of working there

(ii) No obligation is suggested

Province of Saskatchewan

8 (i) and (ii) Obligation should be placed on engineers and architects to observe safety regulations in drafting of plans and carrying out of works

CHILE

8 (i) The reply is in the negative

CHINA

8 (i) Certain obligations should be imposed on the workers and those persons or their legal substitutes responsible for building enterprises

(ii) Those persons or their legal substitutes responsible for the building enterprise should bear the responsibility for the prevention of accidents An obligation to conform to the safety regulations should be imposed upon the workers

DENMARK

8 It would no doubt be desirable to impose on the workers employed on building sites the obligation to contribute towards securing the safety of workers against the dangers to which they might be liable in connection with scaffolding and hoisting machinery

The provisions of the Convention should therefore require the States Members to impose on workers engaged in building an obligation (1) to conform to the prescribed rules in the utilisation of mechanical appliances, such as, for example, cranes and hoists, by taking care for instance not to overload them or to use for the transport of persons hoists not intended for such use, (2) not to interfere with protective devices on mechanical appliances, as for instance by removing them, putting them out of order or destroying or damaging them wilfully or otherwise as an act of sabotage, (3) at all times to show as much prudence and forethought as is compatible with the nature of the work, in their own interests as in those of their workmates, while carrying out their work

In addition, an obligation to exercise the greatest prudence should be imposed on all other persons who may be on or near the site of the works

In order to secure the effective discharge of these obligations by the workers and others concerned the competent authority should have power to require employers to post up in positions considered suitable by the authority conspicuous and easily legible warning notices and extracts from the safety regulations

EGYPT

8 (i) The reply is in the affirmative

(ii) (1) That such persons should not interfere with, or take away or destroy any of the plant or safeguards required by the regulations without the authority of the employer or his responsible agent

(2) That they should use only the gangways, ladders, or staircases or other safe means provided for getting into and about the building

(3) That they should report to the employer any defect they may notice in the plant or appliances

ESTONIA

8 (i) The reply is in the negative

FINLAND

8 In the case of important works a special permit should be required for entry on the site

GREAT BRITAIN

8 (i) and (ii) In view of the difficulty of dealing in the Convention with the legal obligations of third parties visiting the site of the works it is considered that the Convention should not go farther than to provide that such third parties should be prohibited from interfering with any of the plant or safeguards required by the regulations without the authority of the employer or of his responsible agent

GREECE

8 (i) and (ii) Persons who have occasion to be in or about the works should comply with all the general safety regulations, should take proper safety precautions and should endeavour not to cause any accident to other persons The contractor should be held responsible for accidents which may occur and should keep a watch over the actions of any such persons

HUNGARY

8 (i) The reply is in the affirmative

(ii) The rules to be applied would depend upon the capacity in which the persons in question were engaged In certain cases it might be desirable to give the authorities the right to make such rules The rules to be prescribed should not be limited to recommendations or explanations but should include strict prohibitions or precise instructions Apart from the workers and employers, every person on or near a building site should be required to refrain from any act likely to damage or endanger the stability of temporary scaffolding and to take the precautions imposed by considerations of safety Every person in or about the works should be under an obligation to conform to the orders of the person in charge of the work and it would be desirable also to define the rights of the person in charge of the work with respect to persons who happen to be on the site

INDIA

8 Impracticable in most cases

IRISH FREE STATE

8 (i) The reply is in the affirmative

(ii) Such obligations as will secure, in the opinion of the competent authority, the highest standard of compliance

LATVIA

8 (i) It would be desirable to impose certain obligations on any other persons who may be engaged in any capacity in or about the works

(ii) The obligations to be imposed should be left to the discretion of the competent authority in each country

NETHERLANDS

8 (i) The reply is in the affirmative

(ii) The same obligations as apply in the case of workers should be imposed on the persons mentioned in (i)

NORWAY

8 (i) The duty of the employer to provide for the welfare of the workers should be laid down in the Convention and an obligation should be imposed on both employers and workers to take care and to do everything in their power to avoid injury to life and limb

(ii) An obligation should be imposed on manufacturers of, and dealers in, machinery for hoisting installations to deliver machinery which is fitted with the prescribed safety devices Independent contractors who undertake the erection of such machinery should be required to see that the machinery is erected in such a way that the requirements laid down in the safety rules are fulfilled

POLAND

8 (i) The reply is in the affirmative

(ii) The regulations should contain a provision concerning the strict delimitation of the site of the works Access to the site by persons not connected with the works should be strictly forbidden by conspicuous notices

SWEDEN

8 (i) The reply is in the negative

SWITZERLAND

8 (i) and (ii) The Government considers that it would be desirable to forbid access to the works by persons not concerned therewith

UNION OF SOUTH AFRICA

8 Falls away

UNITED STATES OF AMERICA

8 (1) No it does not appear particularly important to do so

Annual Reports

9. Do you consider that if a Draft Convention is adopted it should specify certain points on which full information should be given in the annual reports on the application of the Convention to be furnished by Members, in particular as regards the cases in which the power of exception indicated in Question 6 (1) is exercised and the reasons for such exceptions ?

AUSTRALIA

Federal Capital Territory

9 (No reply is given)

New South Wales

9 It is considered that if a Draft Convention is adopted it should specify certain points on which full information should be given in the annual reports on the application of the Convention to be furnished by Members, e g detailed statements of technical investigations into the cause of accidents resulting from the failure of a part or parts of a scaffold or hoisting appliance

Queensland

9 Yes, the Government consider that there should be no exemption or exception from the operations of the safety provisions

Tasmania

9 The reply is in the affirmative

Western Australia

9 The reply is in the affirmative

AUSTRIA

9 The reply is in the affirmative

BELGIUM

9 The reply is in the negative

BULGARIA

9 The reply is in the negative

CANADA

Province of Manitoba

9 The reply is in the affirmative

Province of Ontario

9 The reply is in the affirmative

Province of Quebec

9 The Government is of opinion that employers should not be required to furnish an annual report to the State as regards cases in which they have exercised the power of exception

Province of Saskatchewan

9 (No reply is given)

CHILE

9 The reply is in the affirmative

CHINA

9 If a Draft Convention is adopted it should specify all the important points on which full information should be given in the annual reports on the application of the Convention to be furnished by Members

DENMARK

9 Yes The information to be given in the annual reports will depend upon the content of the Convention In any case, however, it will be desirable that if the Convention authorises exceptions the States Members should be required to report on the extent to which its power of exception has been exercised The report should, however, be restricted to general exceptions and should not deal with purely individual cases

It would also be highly desirable to require States Members to communicate to the International Labour Organisation data concerning the number and nature of the accidents occurring in the course of the year in the field of employment covered by the Convention These would furnish a basis for international statistics of accidents which would be calculated to stimulate those States which the statistics showed in an unfavourable light

EGYPT

9 The reply is in the affirmative

ESTONIA

9 Hitherto it has always been the Governing Body of the International Labour Office which has determined the form of the annual reports that the States Members are required to furnish on the application of Conventions The Government is of opinion that this method has given excellent results and should be continued, the Governing Body being left entirely free to specify the points on which these reports should furnish information

FINLAND

9 When permanent exceptions are allowed by legislation the obligation to furnish information in the annual reports should be restricted to information concerning the principles in accordance with which individual exceptions have been allowed The inclusion in the annual reports of a list of exceptions and detailed information should not be required

GREAT BRITAIN

9 Ratifying States would be already obliged by Article 22 of the Constitution to furnish annual information in the prescribed form of report as to the application of the Convention It might however be useful to include in the Convention a provision under which ratifying States would undertake to furnish certain information as to action taken supplementary to the application of the Convention, in particular as to the precise measures (if any) taken on the lines of the Model Safety Code, and as to systems of inspection in operation

GREECE

9 The Draft Convention should provide that the annual reports should contain statistics of accidents occurring to persons engaged in building work and of the number of decisions by the courts in connection with the application of the Convention, and information on the activities of the inspection service

HUNGARY

9 The reply is in the negative

INDIA

9 The reply is in the negative

IRISH FREE STATE

9 The reply is in the affirmative

LATVIA

9 The reply is in the affirmative

NETHERLANDS

9 The reply is in the affirmative

NORWAY

9 Information should be given in the annual reports on the exceptions granted and on the reasons for the exceptions

POLAND

9 The reply is in the affirmative In order to facilitate international comparisons it would be desirable that the reports should contain

statistics of accidents which have occurred based on data concerning "accidents notified", classified according to their principal causes (See the reply to Question 6)

SWEDEN

9 Such a provision seems superfluous The Governing Body of the International Labour Office will have regard to the necessity for information of this kind when determining the form of the annual reports concerning the application of the Convention

SWITZERLAND

9 So far as exceptions are allowed it would seem necessary that they should be mentioned in the reports together with the reasons therefor

UNION OF SOUTH AFRICA

9 Falls away

UNITED STATES OF AMERICA

9 See reply to Question 6

B. INSPECTION

10. (*i*) Do you consider that the International Labour Conference should adopt a Recommendation concerning the organisation of labour inspection in the building industry ?

(*ii*) If so, what provisions do you suggest should be included as to

(*a*) nature of the inspection authority (for example, public body or private or semi-official trade or technical bodies);

(*b*) scope of inspection;

(*c*) powers of inspectors;

(*d*) other matters ?

AUSTRALIA

Federal Capital Territory

10 (i) The reply is in the affirmative

(ii) (No reply is given)

New South Wales

10. (i) It is considered that the International Labour Conference should adopt a Recommendation concerning inspection organisation in the building industry

(ii) It is suggested that the following provisions should be included, viz.:

(*a*) The inspection authority should be a public body,

(*b*) The scope of inspection should cover engineering review of the design of hoisting appliances to ascertain if strength and safe working requirements of regulations obtain, the inspection of such appliances during manufacture and construction, the detailed inspection of scaffolds and hoisting appliances after erection on a work

(*c*) Inspectors should have the power to order persons to cease to work in connection with any scaffold or hoisting appliance which appears to the inspector to be dangerous, the power to give instructions in writing requiring that such measures as they may consider necessary to ensure safety shall be taken in regard to any scaffold or hoisting appliance, the right of entry to any work where scaffolds or hoisting appliances are set up

(*d*) Penalties for failure to give effect to the requirements of the regulations, or to the orders and instructions of inspectors

Queensland

10 (i) The reply is in the affirmative

(ii) (*a*) As in the State of Queensland by an Act of Parliament making provision for

(1) the inspection of scaffolding and gear used in connection with all building operations,

(2) the examination and appointment of a sufficient number of inspectors of scaffolding to patrol, visit, advise, instruct and generally enforce the requirements of the Act,

(3) the examination and licensing of scaffolders,

(4) definitely defining the responsibilities under the Act of
employers or owners,
inspectors,
licensed scaffolders,
employees or workmen

(5) By a set of Regulations under the Act containing
a full specification for each type of scaffold, for ladders, for all classes of ropes and gear commonly used, the fullest technical information on the strengths of timbers available for scaffolding and the building trade, also any further information which may act as a guide to inspectors, licensed scaffolders, employers and workmen

Inspectors appointed under the Act to be paid out of revenue and be not permitted to accept any other payment or fees

(*b*) Inspection to cover all classes and sizes of new buildings, all repairs, renovations and demolitions, including foundations and roofs of same

(*c*) Inspectors of scaffolding, having proved their technical and practical knowledge by reason of having passed a qualifying, competitive examination before appointment, shall have authority to·

check designs and determine safe loads and stresses in connection with any scaffolding or hand-operated gear used in connection with any building operations,

issue instructions upon the employer, or his foreman, or the licensed scaffolder, for the alteration, repair or renewal of any scaffold or gear not strictly in accordance with the requirements of the Act, or for any reason unsafe

The inspector may allow a specified period of time within which to comply with his instructions, but in cases of immediate danger may require such instructions to be carried out forthwith and may require the scaffolding or gear not to be again used until the instructions have been carried out to his satisfaction

In this connection a standard *not less* than the existing " Inspection of Scaffolding Acts, 1915 to 1930 " of Queensland and Regulations made thereunder, be adopted as a minimum requirement

(*d*) The assistance of " A Voluntary Committee of Safety " on each works, by co-operating with the inspecting authority, would do much towards accident prevention

Periodical conferences between the Chief Inspector of Scaffolding and representatives from Government Works Department, architects, employers, contractors and building trade employees' representatives, would make for progress in the matter of safe working conditions, also the technical standards of the inspecting authority

Tasmania

10 (i) and (ii) The answer is in the affirmative It is considered that the inspection authority should be the Government, and that inspectors should have the usual scope of inspection and right of entry

Western Australia

10 (i) Yes, in so far as scaffolding gear only is concerned

(ii) (*a*) Government

(*b*) Scaffolding and gear and safe working generally

(*c*) The inspector should have the power to have the provisions of the safety code fully carried out

AUSTRIA

10 (i) The reply is in the affirmative

(ii) (*a*) Official bodies

(*b*), (*c*) and (*d*) The inspecting authorities should be empowered to enter upon and inspect building sites and workshops at any time, to question the persons employed, to require information and documents to be furnished, to carry out investigations, and to issue instructions The inspecting authorities should so far as practicable associate with themselves when making inspections persons having the confidence of the staff employed

BELGIUM

10 (i) The reply is in the affirmative

(ii) (*a*) State authorities

(*b*) All works of construction, demolition, excavation and levelling

(*c*) Prosecution and suspension of the work in case of danger.

BULGARIA

10 (i) The reply is in the affirmative

(ii) (*a*) Inspectors of labour and technical inspectors

(*b*) All matters affecting the safety of workers in the building industry

(*c*) The powers of the inspectors should be as defined in the relevant legislation

(*d*) The reply is in the negative

CANADA

Province of Manitoba

10 (i) The reply is in the affirmative

(ii) (*a*), (*b*), (*c*), (*d*) Under Government supervision

Province of Ontario

10 (i) The reply is in the affirmative

(ii) (*a*), (*b*), (*c*), (*d*) The inspection service should be a public body with private or semi-official bodies co-operating, and its scope should include all building operations to which the international regulations apply The inspection should be adequate to ensure compliance and the powers of inspectors should be similar to those of factory inspectors They should have right of entry, inspection, authority to issue orders and to suspend work until compliance

Province of Quebec

10 (i) The reply is in the affirmative

(ii) (*a*) The inspectors of industrial undertakings of the Province, or any other inspectors appointed by cities or towns to inspect scaffolding and hoisting appliances, should possess technical knowledge of these matters

Province of Saskatchewan

10 (i) and (ii) Local public bodies should provide inspection authority and determine scope of inspection, power of inspectors and other matters

CHILE

10 (i) The reply is in the affirmative

(ii) (*a*), (*b*), (*c*) and (*d*) It would be sufficient to require that among the factory inspectors there should be certain officials specially charged with the supervision of safety standards and with wide powers It would also be possible to authorise public semi-official or private inspectors responsible for insurance against industrial accidents to intervene in matters relating to building construction so that they may take part directly or indirectly in such supervision

CHINA

10 (i) The reply is in the affirmative

(ii) (*a*) The inspection authority should be a public body

(*b*) and (*c*) The scope of inspection and the powers of inspectors should be left to each country to decide

Denmark

10 The Government questions whether it is necessary to adopt a special Recommendation concerning the organisation of inspection It would seem to be sufficient if the Convention required the States Members to ensure the application of the regulations by official inspection authorities in virtue of the national legislation on the subject The Government considers that if the inspection is to be effective it must in all cases be entrusted to *official* inspection authorities

Egypt

10 (i) The reply is in the affirmative

(ii) (*a*) Public body The Government think that the supervision of the safety regulations should be within the province of the Government factory inspectorate assisted by municipal engineers

(*b*), (*c*) and (*d*) The scope of inspection and powers of inspectors should be on similar lines to those laid down in Recommendation No 20 of 1923

Estonia

10 (i) and (ii) The larger States Members are perhaps in a position to organise a special inspection service for the building industry, but in the case of the smaller countries there would probably be serious difficulties if they were required to organise a special service in addition to the general labour inspection service For this reason the Government would prefer the adoption of a Recommendation in accordance with which inspection of building work would be entrusted to the general labour inspection service This Recommendation should not contain any further details, because the International Labour Conference has already adopted, at its Fifth Session, a Recommendation concerning the general principles for the organisation of systems of inspection to secure the enforcement of the laws and regulations for the protection of workers, which includes, of course, workers employed in the building industry

Finland

10 The principle that there should be inspection of the works under construction might be laid down in the Convention and detailed rules concerning the organisation of such inspection might be included in the Recommendation In Finland, a building inspection service deals with general safety questions and the labour inspection service with the particular questions affecting the security of the workers, and the effectiveness of these two inspection services has increased in recent years For present purposes it would seem to be sufficient to adopt regulations concerning labour inspection which might operate more or less on the same principles as for other kinds of employment

Great Britain

10 (i) The reply is in the affirmative

(ii) (*a*), (*b*), (*c*) and (*d*) Inspection should be undertaken by a Government authority and should cover the whole field of the safety measures taken under the Convention The powers of the Inspectorate should be as indicated in Part II of the Labour Inspection Recommendation of 1923

Greece

10 (i) and (ii) In Greece the labour inspection service includes three inspectors of scaffolding, with experience in the trade, who are specially entrusted with ensuring the observance of the safety regulations concerning work of this kind

The Government considers that the general Recommendation might include provisions dealing with the establishment of a special staff of inspectors for the building industry

Details as to the methods of application, that is to say, the nature of the authority responsible for inspection, the scope of inspection and the powers of inspectors, etc should be left to the competent national authority

Hungary

10 (i) The reply is in the affirmative

(ii) (*a*) The inspection authority should be a specialised technical body exercising public authority

(*b*) The scope of inspection should extend to all building work

(*c*) In order that the inspection should be effective, provision should be made for the infliction of penalties and the inspectors should be entitled to impose fines and to give any necessary instructions on the spot, since the ordinary administrative procedure, which is lengthy, would generally prove ineffective having regard to the fact that as a rule building work is of short duration

India

10 (i) No This would, save on very important works, be impracticable

(ii) Does not arise

Irish Free State

10 (i) Having regard to the Recommendation adopted at the Fifth Session of the International Labour Conference concerning the organisation of systems of inspection to secure the enforcement of the laws and regulations for the protection of workers, the adoption of a special Recommendation in respect of the building industry is hardly necessary

Latvia

10 (i) The Government is of opinion that the International Labour Conference should adopt a Recommendation concerning the organisation of labour inspection in the building industry

(ii) (*a*) The duties of inspection should be carried out by State services and by the municipal or communal authorities

(*b*) and (*c*) The scope of inspection and the powers of inspectors should be left to be determined by the national laws and regulations

Netherlands

10 (i) As there is already a Recommendation concerning the general principles for the organisation of systems of inspection to secure the enforcement of the laws and regulations for the protection of the workers (No 20) it seems superfluous to adopt a further Recommendation as suggested in 10 (i)

NORWAY

10 (i) The reply is in the affirmative

(ii) It would hardly be advisable to include in the Convention detailed rules on this matter The organisation of inspection should be left to the different countries

POLAND

10 (i) Since the International Labour Conference adopted at its Fifth Session a Recommendation concerning the general principles of factory inspection and the Governing Body in November 1936 provisionally retained this question for inclusion in the Agenda of the Conference of 1938 with a view to the adoption of a Convention, a Recommendation concerning inspection in the building industry does not seem to be necessary Nevertheless, having regard to the fact that safety inspection on building sites is in certain countries entrusted not only to the factory inspection service but also to other authorities or bodies of a semi-official or private character, the Government declares itself in favour of a Recommendation on safety inspection in the building industry

(ii) (*a*) Having regard to the fact that inspection in the building industry is in different countries entrusted to organisations of different characters, the Recommendation should be limited to naming by way of example the forms of organisation which are most widely adopted

(*b*) The scope of inspection should be the same as that of the international regulations (See the reply to Question 5)

(*c*) Safety inspectors in the building industry should be required to supervise the application of the rules concerning the technique of building construction and of those concerning safety on all work of construction, reconstruction, maintenance, repair and demolition of buildings of all kinds Their powers should correspond with the nature and competence of the authorities and organisations responsible for inspection The inspection authority should have the right to issue prohibitions in accordance with the provisions included in the contracts and to suspend work pending a decision by the competent supervising authority

(*d*) Collaboration between the authorities responsible for inspection is indispensable to secure co-ordination of their activities and achieve the desired ends

SWEDEN

10 (i) It does not seem necessary that there should be a special organisation for inspection in the building industry Inspection in respect of the safety of workers in the building industry should be carried out conjointly with the general labour inspection Moreover, inspection and safety have been the subject of international regulation through the recommendations adopted in 1923 and 1929 and may again be on the Agenda of the Conference in 1939

SWITZERLAND

10 (i) Yes, unless there is an inspection service it is not possible to ensure the enforcement of provisions concerning accident prevention

(ii) (*a*) Works should be subject to regular official inspection by specialists Recourse might be had to private trade organisations for the purpose of this inspection

(*b*) The inspectors should examine scaffolding and hoisting appliances

(*c*) The inspectors should confine themselves to reporting on the facts ascertained to the competent authority It is for that authority to order the measures to be taken which it considers necessary Inspectors should however be authorised to discuss with the heads of undertakings any measures that they consider necessary to remedy any defects observed and they should make proposals to the competent authority In case of imminent danger the inspector should have power to forbid provisionally the continuance of the work

(*d*) The Government has no other suggestions

UNION OF SOUTH AFRICA

10 (i) No The conditions in South Africa preclude the introduction in the near future of any uniform method of inspection in the building industry

UNITED STATES OF AMERICA

10 (i) and (ii) Yes The Government believe it of primary importance that public authority be exercised in the direction of mandatory inspection with the fullest authority to require compliance with existing laws or regulations The Government recognise the desirability of supplementing such inspection authority by the building trade organisations and by employers or insurance carriers but the Government do not believe these latter should be substituted for the obligation of the State to exercise direct inspection supervision

C. CO-OPERATION IN ACCIDENT PREVENTION

11. Do you consider that the International Labour Conference should adopt a Recommendation concerning co-operation between employers, workers and others concerned in the prevention of accidents in the building industry ?

12. If so, do you consider that the Recommendation should contain provisions respecting:

(*i*) **the establishment of safety organisations by associations of employers or workers, or by both together, or in any other way, for the promotion of safety in the building industry ?**

(*ii*) **the promotion of safety by such organisations by means of:**

- (*a*) **safety instruction, hand-books, pamphlets, posters, notices, etc.,**
- (*b*) **meetings, lectures, films, magazines, courses of instruction or training, etc.;**
- (*c*) **the compilation and analysis of detailed accident statistics;**
- (*d*) **other measures ?**

(*iii*) **the establishment of some form of safety organisation in building undertakings (safety manager, safety engineer, safety committee, workmen's inspectors, etc.) ?**

AUSTRALIA

Federal Capital Territory

11 The reply is in the affirmative

12 (i) and (ii) (No reply is given)
(iii) The reply is in the affirmative

New South Wales

11 It is considered that the International Labour Conference should adopt a Recommendation concerning co-operation between employers and workers in the prevention of accidents in the building industry

12 Such Recommendation should contain provisions respecting
(i) with the co-operation of a Government, the establishment of a safety organisation by associations of employers and workers, for the promotion of safety in the building industry,
(ii) the means adopted by such an organisation for the promotion of safety should include
(*a*) safety instruction per medium of hand-books, pamphlets, posters, notices and other like printed matter,
(*b*) the dissemination of knowledge at meetings and discussions and by means of lectures and films,
(*c*) the compilation, analysis and publication of detailed accident statistics

Queensland

11 The reply is in the affirmative

12 (i) The reply is in the affirmative
(ii) (*a*), (*b*) and (*c*) The reply is in the affirmative
(iii) Yes See the reply to Question 10 (ii) (*d*)
The co-operation of all persons on the building in keeping all floors, scaffolds, gangways, etc, free from loose building material and debris would assist materially towards safe working conditions

Tasmania

11 The reply is in the affirmative

12 The reply is in the affirmative

Western Australia

11 The reply is in the affirmative

12 (i) The reply is in the affirmative
(ii) (*a*), (*b*) and (*c*) The reply is in the affirmative
(*d*) Some provision might be made to prevent any person who has defective hearing or eyesight from being employed in any but safe duties
(iii) On large works only

Austria

11 The reply is in the affirmative

12 (i) The establishments of joint bodies by the organisations of the employers and workers for the promotion of safety might be recommended

(ii) (*a*), (*b*) and (*c*) The replies are in the affirmative

(*d*) Further measures do not appear to be indispensable

(iii) The association of representatives of the workers with the enforcement of safety provisions in building undertakings is suggested

Belgium

11 The reply is in the affirmative

12 (i) The reply is in the affirmative, by the action of associations of employers and workers

(ii) (*a*), (*b*), (*c*) The replies are in the affirmative

(iii) The reply is in the affirmative

Bulgaria

11 The reply is in the affirmative

12 (i) and (ii) The replies are in the affirmative

(iii) Yes, but under the direct control of the competent authorities

Canada

Province of Manitoba

11 The reply is in the affirmative

12 (i) The reply is in the affirmative

(ii) (*a*), (*b*) and (*c*) The reply is in the affirmative

(*d*) Conditions would determine any other measures

(iii) The reply is in the affirmative

Province of Ontario

11 The reply is in the affirmative

12 (i) Yes, a joint safety council

(ii) (*a*), (*b*), (*c*), (*d*) Yes, in all cases.

(iii) The reply is in the affirmative

Province of Quebec

11 The reply is in the affirmative

12 (i) The reply is in the affirmative

(ii) (*a*), (*b*), (*c*) and (*d*) The replies are in the affirmative

(iii) The reply is in the affirmative

Province of Saskatchewan

11 The reply is in the affirmative

12 (i) The Recommendation should contain provisions respecting the establishment of safety organisations by associations of both employers and workers

(ii) The safety of workers should be promoted by all means possible

(iii) (No reply is given)

CHILE

11 The reply is in the affirmative

12 (i), (ii) and (iii) The reply is in the affirmative

CHINA

11 The reply is in the affirmative

12 (i), (ii) and (iii) The Recommendation should contain all the provisions enumerated in the Questionnaire

DENMARK

11 The reply is in the affirmative

12 Measures of the kind indicated designed to prevent accidents in the building industry so far as may be possible in each country will be affected by a variety of circumstances, such as the level of education and the mentality of the people, etc Precisely for this reason, however, any Recommendation that may be adopted should call attention to all the different measures that may be employed for this purpose, leaving it to each State Member to choose between them

The Government has no observations to make and no suggestions for additions to the measures listed in Question 12

EGYPT

11 The reply is in the affirmative

12 (i), (ii) and (iii) The reply is in the affirmative

ESTONIA

11 The reply is in the affirmative

12 (i) and (ii) The replies are in the affirmative

(iii) The establishment of a special safety organisation is possible only in the largest building undertakings

FINLAND

11 and 12 A Recommendation dealing with the organisation of collaboration for the prevention of accidents in the building industry seems desirable There is an association for the prevention of accidents in Finland and it is doubtful if there is any necessity to recommend the establishment of an international organisation dealing with this subject

The measures listed in the Questionnaire seem to be appropriate Special importance is attached to the training of workers and instruction in the prevention of accidents

GREAT BRITAIN

11 The reply is in the affirmative

12 (i), (ii) and (iii) The reply is in the affirmative

GREECE

11 and 12 The limited technical and financial resources available in Greece would not permit of taking all the measures indicated in Questions 11 and 12 Nevertheless, the Government might be able to bring together the trade associations for the purpose of safety propaganda designed to give instruction to workers in the prevention of accidents

HUNGARY

11 The reply is in the affirmative

12 (i) The reply is in the affirmative

(ii) (*a*), (*b*), (*c*) and (*d*) Yes, in addition to safety propaganda consideration should be given to the desirability of submitting apprentices to the building industry to special tests of aptitude In some cases, builders' labourers should likewise be subjected to certain tests in special laboratories

(iii) No The proper carrying out of safety regulations is a matter for the person in charge of the work It is for him to see that the safety regulations are respected

INDIA

11 Neither associations of employers or of workers exist and the recommendations suggested would be incapable of execution

12 See reply to Question 11

IRISH FREE STATE

11 The reply is in the affirmative

12 (i) The reply is in the affirmative

(ii) (*a*), (*b*) and (*c*) The reply is in the affirmative

(iii) The reply is in the negative

LATVIA

11 It is desirable that the International Labour Conference should adopt a Recommendation concerning co-operation between employers, workers and others concerned in the prevention of accidents in the building industry

12 The Recommendation should contain provisions concerning (i) the establishment by associations of employers and workers of organisations for the promotion of safety in the building industry, (ii) the promotion of safety by such organisations by means of (*a*) safety instruc-

tion, hand-books, pamphlets, posters, (*b*) meetings, lectures, cinema films, etc , (*c*) publication of detailed statistics of accidents

NETHERLANDS

11 and 12 The Government is of opinion that a Recommendation such as is suggested here is not necessary, the matter being already dealt with in the existing Recommendation concerning the prevention of industrial accidents (No 31)

NORWAY

11 The reply is in the affirmative

12 The Recommendation concerning the prevention of industrial accidents adopted by the International Labour Organisation in 1929 would seem to cover the building industry

POLAND

11 The reply is in the affirmative

12 (i) The reply is in the affirmative

(ii) All the measures mentioned here are very important

(iii) In view of the special conditions of building sites, where undertakings of the most varied kinds may be at work, the establishment of a safety organisation necessitates joint action by all the employers concerned

SWEDEN

11, 12 and 13 There would appear to be good reason for the adoption of the Recommendations referred to in Questions 11, 12 and 13

SWITZERLAND

11 No, the collaboration between employers, workers and inspecting authorities very probably differs from one country to another according to the legislation in force concerning accident prevention, so that it would hardly be possible to arrive at any result by a Recommendation

12 (i), (ii) and (iii) The Recommendation, if there should be a majority in favour of one, should not go into details such as are suggested in these questions

UNION OF SOUTH AFRICA

11 (i) The reply is in the affirmative

12 (i), (ii) and (iii) The reply is in the affirmative

UNITED STATES OF AMERICA

11 The reply is in the affirmative

12 (i), (ii) and (iii) Under Questions 4 and 7 the Government have indicated the opinion that the employer should be obligated to provide safety instruction and safety supervision In addition

to such mandatory requirements the Government favour the inclusion in the recommended Code of the establishment of safety organisations by associations of employers and workers, or by both, and the promotion of safety by such organisations through hand-books, posters, notices, meetings, lectures, films, training courses, and any other suitable measures, including the compilation and analysis of detailed accident statistics (note the Government's suggestion that reporting of accidents to a competent public authority should be made mandatory It follows, of course, that such authority would compile, analyse, and appraise the reported accidents)

D. TECHNICAL EDUCATION AND OTHER MEASURES

13. Do you consider that the International Labour Conference should adopt a Recommendation as to:

(*i*) the desirability of including instruction in safety and supervision, especially the training of foremen, in the syllabuses of technical or trade schools;

(*ii*) the desirability of including in the conditions of building contracts given out by the State or other public authorities a clause calling attention to the safety regulations in force and indicating any other measures that may be required to be taken in order to avoid accidents,

(*iii*) any other measures for promoting safety in the building industry ? If so, what other measures do you suggest ?

Australia

Federal Capital Territory

13 (i) and (ii) The reply is in the affirmative

(iii) Yes See annexed suggestions

New South Wales

13 It is considered that the International Labour Conference should adopt a recommendation as to

(i) the desirability of including instruction in safety and supervision, especially the training of foremen, in the syllabuses of technical and trade schools,

(ii) the desirability of including in the conditions of building contracts given out by the State and other public authorities a clause calling attention to the safety regulations in force and making mandatory the observance of such regulations

Queensland

13 (i) Yes Education of apprentices to the building trades on strengths of materials used in the construction of scaffolding and all

gear, also on the principles of scaffolding construction and maintenance, should form part of their technical training

(ii) Yes All day labour or contract works, whether undertaken by or on behalf of State Public Works Department, local authorities or private firms or individuals should make provision for a strict observance of the safety provisions for workers in the building industry, and all undertakings and contracts should contain a specific clause making the compliance with such safety provisions compulsory

(iii) In order to adequately deal with mechanical hoisting equipment used in connection with the building industry, it is recommended that an Inspection of Machinery Act, similar, in so far as cranes, hoists and lifting gear are concerned, to "The Inspection of Machinery Acts, 1915-1930" of Queensland would meet the requirements of safety provisions

As the Queensland Machinery Acts make provision for design and inspection of hoisting equipment and in dealing with the technical requirements of the safety provisions, it is recommended that consideration be given to Regulations 14 and 15 of the said Acts, also the undermentioned Australian Standard Specifications

S A A, C A 1, 1933 Structural Steel
S A A, C A 2, 1934 Concrete
S A A, C A 3, 1935 Lifts
S A A Draft Specifications Cranes and Hoists in course of completion

Tasmania

13 The reply is in the affirmative

Western Australia

13 (i) The reply is in the affirmative

(ii) The reply is in the negative

(iii) On all large works at least one employee should hold a first aid certificate and the necessary outfit should be kept on the work

AUSTRIA

13 (i) The reply is in the affirmative

(ii) The reply is in the affirmative

(iii) Medical examination for the purpose of determining the physical aptitude for specially dangerous work, freedom from liability to vertigo, etc, is suggested

BELGIUM

13 (i) The reply is in the affirmative

(ii) The reply is in the affirmative

BULGARIA

13 (i), (ii) and (iii) The replies are in the affirmative

CANADA

Province of Manitoba

13 (i) The reply is in the affirmative
(ii) The reply is in the affirmative
(iii) Conditions would determine any other measures

Province of Ontario

13 (i) and (ii) The reply is in the affirmative
(iii) The Government have no further suggestion to make

Province of Quebec

13 (i) The reply is in the affirmative
(ii) The reply is in the affirmative
(iii) The reply is in the affirmative

Province of Saskatchewan

13 (i) The reply is in the affirmative
(ii) The reply is in the affirmative

CHILE

13 (i), (ii) and (iii) The reply is in the affirmative

CHINA

13 (i) The reply is in the affirmative
(ii) The reply is in the affirmative
(iii) The reply is in the negative

DENMARK

13 (i) and (ii) The replies are in the affirmative

EGYPT

13 The reply is in the affirmative

ESTONIA

13 The replies are in the affirmative

FINLAND

13 It is considered desirable that increased attention should be given to safety questions in the technical training of workers In Finland contracts between the State and private persons are subject to the same legislation as contracts between two private employers so that there is no occasion to exclude State contracts, but it might be recommended that every employer working on any substantial scale should be required in his contracts to give consideration to the question of the safety of the workers

GREAT BRITAIN

13 (i) The reply is in the affirmative

(ii) If the employer is required to bring the regulations to the notice of employees by posting up a notice on the site and this requirement is enforced by adequate inspection, it should be unnecessary to call attention to the regulations when contracts are given out and in any case it would seem inappropriate to do so by a clause in the contract

The suggestion that the contract should indicate further safety measures appears open to the serious objection that it would tend to weaken the employer's sense of responsibility It is important that the employer should be encouraged to take *all possible* steps to secure the safety of his employees, and suggestions from the public authority might lead him to think that, if he carried out these suggestions, no more need be done, whereas possibilities of danger may arise from time to time as the work goes on, which the public authority could not foresee when the contract was given out

(iii) No further suggestions

GREECE

13 (i) The reply is in the affirmative Instruction of this kind is not included in the syllabus of any trade school in Greece, but the Government would not be opposed to the reform suggested

(ii) The reply is in the affirmative

(iii) In the Government's opinion the draft Model Safety Code prepared by the Correspondence Committee on Accident Prevention contains all the rules necessary for the prevention of accidents

HUNGARY

13 (i) The reply is in the affirmative

(ii) The reply is in the negative

(iii) Yes, standardisation of materials and appliances

INDIA

13 (i) Yes, where such schools exist

(ii) No objection This is already done in contracts given out by the Public Works Department

IRISH FREE STATE

13 (i) and (ii) The reply is in the affirmative

LATVIA

13 The Government considers it desirable that the International Labour Conference should adopt a Recommendation as to (i) the desirability of including instruction on safety matters in the syllabuses of technical and trade schools, (ii) the desirability of including in the conditions of building contracts given out by the State a clause calling attention to the safety regulations in force for the purpose of preventing accidents

NETHERLANDS

13 (i) The reply is in the negative

The Government is of opinion that this matter ought rather to form the subject of special investigation, which should not be limited to the building industry

(ii) The reply is in the affirmative

(iii) The reply is in the negative

NORWAY

13 The reply is in the affirmative.

POLAND

13 (i), (ii) and (iii) The reply is in the affirmative

SWITZERLAND

13 (i) The reply is in the affirmative

(ii) The reply is in the affirmative

(iii) It would be well to recommend to building contractors that they should purchase or hire only machines which comply in all respects with the safety requirements and they should not use machines until they have received from the inspecting authorities confirmation that they are in order from the point of view of accident prevention

UNION OF SOUTH AFRICA

13 (i) and (ii) The reply is in the affirmative

(iii) The Union has no suggestions regarding further measures

UNITED STATES OF AMERICA

13 (i) and (ii) The reply is in the affirmative.

Draft Model Safety Code for Scaffolds and Hoisting Appliances Used in the Building Industry

drawn up in collaboration with the Office by the

CORRESPONDENCE COMMITTEE ON THE PREVENTION OF ACCIDENTS

together with the
Amendments suggested and Comments made by Governments in their replies to the Questionnaire

PART I

SCAFFOLDS

1 *General Rules*

(1) Suitable scaffolding shall be provided for workmen for all work that cannot be safely done from a ladder or by other means

The words " where possible " should be added at the commencement of this clause

AUSTRALIA (New South Wales)

Amend to read " Suitable and sufficient scaffolding shall be provided for workmen on all work above the height of eight (8) feet from the ground, unless such work is of a local nature and may safely be done from a ladder or other approved means "

AUSTRALIA (Queensland).

The text as it stands is susceptible of a very wide interpretation

HUNGARY.

(2) Every scaffold shall be constructed under the direction of a competent and responsible person, and as far as possible by skilled and experienced workers

(1) Every person before commencing to set up a scaffold, engine or crane, shall serve on the Inspector of Scaffolds a notice of his intention to do so at least twenty-four hours before such scaffold, engine or crane is commenced to be set up

(2) A penalty clause for the non-observance of this condition.

AUSTRALIA (Federal Capital Territory).

The words " as far as possible " should be deleted

AUSTRALIA (New South Wales)

Delete " and as far as possible " and insert " he being the holder of a Scaffolder's Licence, and "

AUSTRALIA (Queensland)

On buildings of more than one storey in height a certificated scaffolder should be employed

AUSTRALIA (Western Australia)

This clause is unnecessary
Reason The draft defines with sufficient precision the safety requirements in respect of the erection and use of scaffolding
The contractor should be held responsible for the use of scaffolding and hence for ascertaining that it complies with the regulation requirements and, if it is defective, for making good the defects either by himself or by the sub-contractor This moreover is the effect of Rule 14

BELGIUM

After " constructed " insert " or taken down "

EGYPT

Alter to read " A scaffold shall not be constructed or substantially altered except (i) under the supervision of a competent and responsible person, and (ii) as far as possible by skilled and experienced workers "

GREAT BRITAIN

The qualifications of the person responsible should be specified in accordance with the kind and size of the scaffolding

HUNGARY

(3) All scaffolding and appliances connected therewith shall be of sound material and strong enough to support the loads and strains to which they will be subjected
In particular the wooden parts used for scaffolds, gangways, runs and ladders shall be of good quality, shall have long fibres and shall be in perfect condition, they shall not be painted or in any other way treated so that defects cannot easily be seen [1]
Round timber used for scaffolding shall have the bark completely stripped off Boards and planks shall be protected against splitting
Material used for metal scaffolds shall have no cracks and shall be free from corrosion or other defects [1]
Cast iron nails shall not be used

[1] The Government of Belgium proposes drafting alterations to the French text of the two last paragraphs which do not affect the English text

Nails or nailed-on cleats shall not be used in connection with the erection of scaffolds

Bolts used for scaffolds shall be not less than ½ inch diameter

AUSTRALIA (Federal Capital Territory)

The first paragraph should be amended to read

" All scaffolding and appliances connected therewith shall be of sound material of such dimensions that a factor of safety of not less than four will obtain under the maximum loads to which they will be subjected "

AUSTRALIA (New South Wales)

The second paragraph should be amended to read " shall be of good quality and shall have long fibres, shall be free from defects affecting their strength and shall not be painted "

The fourth paragraph should be amended to read " free from such corrosion or other defects as will materially affect strength "

The sentence " Cast iron nails shall not be used " should be placed before the preceding paragraph, its present position suggests that it refers to metal scaffolds

CANADA (Ontario)

After " therewith " (in first paragraph) insert " and all ladders "

Delete " strong enough to support " (in first paragraph) and substitute " of adequate strength having regard to "

Delete " shall be in perfect condition " (in second paragraph) and substitute " be free from patent defect "

Delete " round " (in third paragraph)

Delete " material used for metal " (in fourth paragraph) and substitute " metal parts of "

Delete " corrosion or other " (in fourth paragraph) and substitute " patent "

GREAT BRITAIN

Delete " they shall not be painted or in any other way treated so that defects cannot easily be seen " (second paragraph) and substitute " They shall not be subjected to any treatment which might conceal defects in them "

Delete the third paragraph and substitute " Round timber used for scaffolding shall as a rule have the bark completely stripped off "

Delete the last paragraph and substitute " Clamps or nails of cast iron or soft iron shall not be used "

SWEDEN

(4) On each occasion before erection, scaffold parts shall be examined by experienced persons and shall not be used unless in every respect they possess the qualities required for their purpose If any part is found defective it shall be repaired, or if not capable of repair, shall not be used as scaffold plant

On each occasion before use ropes shall be carefully examined by qualified persons, and any rope that has been in contact with acids or other corrosive substances shall not be used

Delete " experienced persons " (first paragraph) and substitute " an Inspector of Scaffolding "
Delete " qualified persons " (second paragraph) and substitute " an Inspector of Scaffolding "

AUSTRALIA (Queensland)

The words " experienced persons " (first paragraph) should be replaced by the words " the head of the undertaking or his agent "
Reason This makes the head of the undertaking that is to say, the contractor if he erects the scaffolding himself or the sub-contractor engaged to erect it, responsible for the use of sound materials
The second sentence should be deleted, as it repeats what is said in the latter part of the preceding sentence
The second paragraph should be redrafted as follows " Ropes and cables that have been in contact with acids or corrosive substances shall be removed "
Reason As the text is drafted, the first part repeats what is said in the first paragraph, since ropes and cables are scaffold parts

BELGIUM

The requirement that scaffold parts shall be examined before erection should be restricted to scaffolds set up with ready-made parts, in Finland it would be difficult to ensure that the materials used for the construction of scaffolds would be examined in every case before the scaffold is erected

FINLAND

Delete " If any part is found defective it shall be repaired, or if not capable of repair, shall not be used as scaffold plant " (first paragraph)
After " substances " (second paragraph) insert " or is otherwise defective "

GREAT BRITAIN

Delete " experienced persons " (first paragraph) and substitute " an experienced person "
Delete " If any part scaffold plant " (first paragraph)
Delete " qualified persons ' (second paragraph) and substitute " a qualified person "

SWEDEN

(5) All materials used in the construction of scaffolds shall be stored under good conditions

After " conditions " add " apart from any material unsuitable for scaffolding "

GREAT BRITAIN

E/0460

It would be useful to add " so as to protect them from damage due to the weather "

HUNGARY

Delete " used ' and substitute " intended for use "

SWEDEN

2 *Supply and Use of Material*

Sufficient material shall be provided for, and shall be used in the construction of scaffolds, and when in place no part shall be removed until it is no longer required for working purposes, stability or safety

Delete the words " Sufficient material shall be provided for, and shall be used in the construction of scaffolds, and "

AUSTRALIA (New South Wales)

The first part of the sentence appears unnecessary

BELGIUM

Add to title " and Maintenance of Scaffolds "
Omit " and when in place safety " and add ' Every scaffold shall be maintained in good and proper condition and every part shall be kept fixed or secured to prevent accidental displacement No scaffold shall be partly dismantled and left so that it is capable of being used unless it continues to comply with these rules "

GREAT BRITAIN

Alter the title to read " Removal of parts of scaffolds prohibited '
Delete " Sufficient material construction of scaffolds and ', and add after " part ' the words " of a scaffold "

SWEDEN

3 *Pole and Gabbard Scaffolds*

(1) Pole standards and the legs of gabbard scaffolds shall be vertical or if only one row of uprights is used, shall be slightly inclined to the building and fixed sufficiently close together to secure the stability of the scaffolding having regard to all the circumstances

The stability of pole standards shall be secured by letting the pole 60 cm or more into the ground, according to the nature of the soil, by properly placing the pole on a plank in such a way that slipping is securely prevented, or in any other sufficient way

When two scaffolds meet at a corner of a building under construction, a pole standard shall be placed at the corner on the outside of the scaffolds [1]

The stability of pole standards should be ensured by letting the pole 25 cm or more into the ground according to the nature of the soil, the height of the scaffold and the load it has to carry

BULGARIA

[1] The Belgian Government suggests drafting alterations to this clause which affect the French text only

Delete the words " in such a way that slipping is securely prevented " (second paragraph) and insert " of sufficient superficial area and not less than 50 mm in thickness in such a manner as to prevent slipping "

CANADA (Ontario)

The stipulation that the pole standards and legs of gabbard scaffolds shall be vertical should apply only to fixed scaffolds It is suggested, however, that in the case of scaffolds with one or two rows of uprights the outer row might be slightly inclined towards the building

The second paragraph of this clause provides that the stability of pole standards shall be secured by letting the pole 60 cm or more into the ground Circumstances differ greatly in this respect, and it would be sufficient to stipulate that the standards must be adequately fixed in the ground

FINLAND

Delete ' by properly placing the pole on a plank in such a way that slipping is securely prevented " (second paragraph), and substitute " by properly placing the pole on a plank or other sole plate in such a manner as to prevent slipping "

GREAT BRITAIN

If the standards are to remain fixed in the ground for a long period (of several years), it is desirable that the part in the ground should be protected against damp by impregnation or otherwise

The method of stacking standards before they are fixed in the ground and after they are taken out of it should be prescribed

If one standard is used to extend another, the upper standard should overlap two-fifths of the lower one and be fastened to it by at least six strong clamps

HUNGARY

Delete " 60 cm or more (first paragraph) and substitute " to a sufficient depth '

SWEDEN

(2) Ledgers shall be practically level They shall be securely fastened to the uprights by bolts, dogs, ropes or other efficient means The ends of two consecutive ledgers at the same level shall be securely joined together [1]

Add at the end " Bolts shall be not less than five-sixths inch in diameter "

AUSTRALIA (New South Wales)

Delete the word " dogs "

AUSTRALIA (Queensland)

[1] The Belgian Government suggests drafting alterations to this clause which affect the French text only

The following words should be added at the end " where they meet the uprights "

FINLAND

Delete " ropes or other efficient means ' and substitute " or other efficient means and supported by securely fastened cleats '

SWEDEN

(3) Putlogs shall be straight and securely fastened to the ledgers

Putlogs which have one end supported by a wall shall have at that end a plane supporting surface at least 10 cm deep .

The distance between two consecutive putlogs on which a platform rests shall be fixed with due regard to the anticipated load and the nature of the platform flooring This distance shall in no case exceed 1 m with planks 30 mm thick, 1 50 m with planks 40 mm. thick, and 2 m with planks 50 mm thick

Add at the end of the second paragraph " and they shall be secured to the wall "

AUSTRALIA (New South Wales)

Delete " 10 cm " (second paragraph) and substitute " 12 cm "

AUSTRALIA (Queensland)

Add to the first paragraph " and shall extend beyond them, the dimensions of the putlogs shall be appropriate to the load to be carried "

BELGIUM

The last sentence should be replaced by the following " The outside planks at least shall be fixed to the putlogs "

FINLAND

Add to the first paragraph " If they are not supported by the ledgers they shall be fastened to the uprights and supported by securely fastened cleats "

Delete the last sentence of the third paragraph

SWEDEN

In the last sentence delete " in no case " and add ' when the platforms in question are intended to carry building materials and not simply boxes of mortar "

Reason In determining the relation between the putlogs and the thickness of the planks a distinction must be made between heavy platforms for construction purposes and light platforms for work such as rough-casting and plastering In the latter case the scaffold has to carry only a box of mortar The dimensions given in the text apply to heavy scaffolds and no provision is made for light scaffolds

SWITZERLAND

4 *Ladder Scaffolds*

Ladder scaffolds shall only be used for work requiring little material (renovation, painting and the like)

The ladders serving as the uprights of these scaffolds shall be of adequate strength They shall be let into the ground to a depth of at least 50 cm or placed on sole plates or boards so that the two uprights of each ladder rest evenly on the base In the latter case the feet of the ladders shall be suitably fastened to prevent them from slipping

If a ladder is used to extend another, the two shall overlap at least 1 50 m and shall be securely fastened together

Delete the whole of this rule and substitute " The use of ladders for supporting planks for a working platform is prohibited "

AUSTRALIA (New South Wales)

This form of ladder scaffold is not permitted in Queensland, but the following covers a form of ladder and bracket scaffold which has been approved

" Ladder scaffolds shall not be used, except for repairs or light work and where each ladder is fitted with a fabricated steel bracket having a full bearing on two (2) rungs of the ladder not less than 1 m apart and such brackets shall make provision for scaffold planks, also hand rail of standard requirements

" Ladders shall be inclined towards the wall or building and secured top and bottom

" Ladders shall be not more than nine (9) feet apart at top and bottom

" The use of such ladder scaffolds shall be at the discretion of the Inspector of Scaffolding "

AUSTRALIA (Queensland)

This rule might be deleted or included only in the Recommendation

FINLAND

Measures should be taken to prevent not only sideways slipping but also overbalancing, by fastening the upper ends of the ladders to the roof-plate or above the roof-plate to the timbers of the roofing and also at the openings in the wall (at intervals of two storeys) by means of braces

Stability should be ensured by means of diagonals (St Andrew's cross) on every alternate square and by fixing stout struts and supporting planks fastened by bolts If the ladder is a trestle ladder, the two sides should be braced together Where there are likely to be many passers-by in the street, ladder scaffolds should be protected on the side of the street by matting

HUNGARY

Delete " a depth of at least 50 cm " (second paragraph) and substitute " a sufficient depth according to the nature of the soil

Delete " at least 1 50 m " and substitute " for a sufficient distance "

SWEDEN

5 *Stability of Pole, Gabbard and Ladder Scaffolds*

(1) Every scaffold shall be sufficiently and properly braced, in every case the scaffold unless it is an independent scaffold shall be rigidly connected with the building at suitable vertical and horizontal distances

See remarks on " Ladder Scaffolds "

AUSTRALIA (Queensland)

After the word " building " add the words " or with some other fixed point "

FINLAND

Delete " vertical and horizontal "

SWEDEN

(2) If the scaffold is an independent scaffold, at least one-third of the putlogs used for supporting any working platform more than 3 5 m above the ground or floor shall remain in position until the scaffolding is finally removed, these putlogs shall remain securely fastened to the ledgers

Add at the end " or the uprights "

SWEDEN

(3) In general, all structures and appliances used as supports for working platforms shall be of sound construction, shall have a firm footing and shall be suitably strutted and braced to make them stable

Loose bricks, drain pipes, chimney pots or other unsuitable material shall not be used for the construction of scaffolds [1]

In the last line insert " or support " after " construction "

GREAT BRITAIN

Delete the second paragraph

SWEDEN

6 *Cantilever or Jib Scaffolding*

Cantilever or jib scaffolding shall be securely fixed and anchored from the inside The outriggers shall be of adequate length and cross-section to ensure its solidity and stability The scaffolding shall be properly braced and supported

[1] The Belgian Government suggests a drafting alteration which affects the French text only

Only solid parts of the building shall be used as supports for scaffold parts

If working platforms rest on wooden bearers let into the wall the bearers shall go right through the wall and be securely fastened.

The last two sentences should be replaced by the following " In addition, the bearers shall be supported by braces fixed to the wall and shall be firmly fixed in the wall Only solid parts of the building shall be used as supports for cantilever or jib scaffolding "

FINLAND

In the last paragraph, delete " wooden " and after " fastened " insert " on the far side "

GREAT BRITAIN

7 *Bracket Scaffolds*

No figure or bracket scaffold supported or held by dogs or spikes driven into the wall shall be used

" Bracket scaffolds shall be framed and bolted together, spaced at *not more than 9 ft centres and supported by diagonal struts* and pegs driven into the ground "

AUSTRALIA (Federal Capital Territory)

Add " All bracket scaffolds shall be of fabricated mild steel and shall be secured by bolts not less than (5/8 in) 16 mm diameter passing through the uprights of the wall or in case of reinforced concrete construction set into the wall during pouring.

"Such brackets shall have a minimum factor of safety of five (5), based on all stresses due to maximum load "

AUSTRALIA (Queensland)

Add at the end " unless the method of fixing in the wall is absolutely safe '

SWEDEN

There does not appear to be any reason for a general prohibition of certain types of scaffold Any scaffold, of whatever kind, could certainly be constructed so as to give all the security desirable it is simply a question of cost If the Model Code is to contain any rule concerning scaffolds supported by brackets fixed in the wall, the Government suggests the following text " The use of brackets fixed by dogs or spikes fastened into the wall is authorised on condition that the brackets used are suitable and made of metal and are fixed to the wall in such a way as to be quite secure "

SWITZERLAND

8 *Heavy Suspended Scaffolds*

Complete the title by adding " with movable platforms "

BELGIUM

Heavy suspended scaffolds shall comply with the following regulations

(1) Outriggers shall be installed at right angles to the building face and carefully spaced to suit the deck irons

The overhang of the outriggers from the building shall be such that when practicable the platform is fixed to hang 10 cm from the building face

Delete the words " when practicable "

BELGIUM

After " hang " insert " not more than "

GREAT BRITAIN.

(2) Anchor bolts shall be properly tightened and shall securely tie down the outrigger to the framework

The use of counterweights (bags of cement, piles of bricks, etc) shall be prohibited as a means of securing outriggers of these scaffolds

Delete the second paragraph and substitute

" In the case of repairs or renovations to existing buildings, counterweights may be in the form of stout wooden platforms securely fastened to outriggers and loaded with stacked bricks or steel rails

" Bags of cement or sand, or water ballast, must not be used "

AUSTRALIA (Queensland)

After the word " framework ", add the words " of the building "

BELGIUM

(3) Stop bolts shall be placed at the end of each outrigger [1]

(4) The shackles serving to fasten the cables to the outriggers shall be placed directly over the drum centres to get a straight lead The eye of the cable shall be placed in the centre of the bent shackle bolt

The deck irons supporting the platforms shall be suitably fastened so as to prevent slipping and to hold the machines The fish plates joining the deck irons shall be properly bolted

[1] The Belgian Government suggests a drafting alteration which affects only the French text

After the words " drum centres ", insert the words " of the movable platform "

BELGIUM

(5) Cables, when new, shall have a safety factor of at least 10, based on the maximum load that the platform may be called upon to bear

The length of the cables shall be such that at the lowest position there are at least two turns of rope on each drum

Delete the words " Cables, when new, shall have " and substitute " Cables shall at all times have "

BELGIUM

Proposed new clauses

Suspended scaffolds should be provided with guard-rails

CHILE

All workers working on suspended scaffolds should be protected by a rope attached to a wide belt The slack part of the rope should not exceed 3 m and should be fixed to one of the upper shackles of the suspended scaffold [1]

HUNGARY

9 *Light Suspended Scaffolds*

Complete the title by adding " with movable platforms "

BELGIUM

Light suspended scaffolds shall comply with the following regulations

(1) The outriggers shall be of adequate length and cross section and shall be suitably installed and supported.

(2) The inside ends of the outriggers shall be firmly secured When the outriggers have to be placed on a flat roof the bags of ballast shall be securely lashed to the roof.

Delete " the bags of ballast " and substitute " and bags of ballast are used they "

CANADA (Ontario)

Delete the second sentence

SWEDEN

(3) The maximum length of the platform shall be 8 m.

It is questionable whether the length fixed is not too great

SWEDEN.

[1] This suggestion applies also to Rules 9 and 10.

(4) The platform shall hang on at least 3 ropes, not more than 3 m apart The middle rope shall at no time be tauter than the other two

Delete the second sentence and substitute " No intermediate rope shall at any time be tauter than either of the two end ropes "
It is essential to retain " at no time ", as the employer's responsibility does not end with the initial fixing [1] The wording of the text and of the Employers' amendment applies to a three-rope system only

CANADA (Ontario)

Delete the second sentence and substitute " No intermediate rope shall be tauter than either of the end ropes "

GREAT BRITAIN

(5) The pulley blocks shall be fastened to the platforms by stout iron bands, properly secured and continued round the sides and bottom of the platform, with eyes in the iron to receive the ropes

(6) Suspended scaffolds on which the workers sit to work shall be provided with devices to keep the platform at a distance of at least 30 cm from the wall and to prevent the workers from knocking their knees against the wall if the scaffold swings

See suggested addition to Rule 8 (5)

HUNGARY

10 *Other Suspended Scaffolds*

When a skip, large basket, or similar equipment is used as a suspended scaffold, it shall be supported by cables having a safety factor of at least 10, based on the total load including the dead weight

Such equipment shall be at least 75 cm deep and shall be carried by two strong iron bands properly fastened and continued round the sides and bottom, with eyes in the iron to receive the ropes

Provided that the use of such equipment shall only be allowed in exceptional circumstances and under the supervision of a responsible person

After " responsible person " (last line) add ' with the approval of the inspecting authority "

AUSTRALIA (Queensland)

Suspended scaffolds of this type should be prohibited

CHILE

[1] The reference is to an amendment moved by the Employers' representatives in committee at the Conference in June, 1936, to delete the words " at no time be tauter than " and substitute " when fixed shall not be tauter than either of "

See suggested addition to Rule 8 (5)

HUNGARY.

After " basket " insert " boatswain's chair "
Delete " cables having a safety factor the dead weight " (first paragraph) and substitute " wire or hemp ropes of adequate strength and shall be equipped with devices to prevent the workers from falling "
Delete the second paragraph
Delete " in exceptional circumstances ' (third paragraph) and substitute " for work of a temporary kind "

SWEDEN

11 *Transport and Storage of Material on Scaffolds Distribution of the Load*

In transferring material on a scaffold, or from the ground or a floor to the scaffold, care shall be taken to handle gently so that no sudden shock is transmitted
The load on the scaffold shall also be evenly distributed, so as to avoid any dangerous disturbance of the equilibrium
During the use of a scaffold care shall constantly be taken that it remains in good condition, that it is not overloaded and that materials are not improperly stored upon it [1]

Add " Heavy materials shall be removed from scaffolds at cessation of work each day "

AUSTRALIA (Federal Capital Territory)

Delete " on a scaffold, or from the ground or a floor to the scaffold " (first paragraph) and substitute " on or to a scaffold "
After " distributed " (second paragraph) delete " so " and insert " as far as is practicable and in any case shall be so distributed "
Substitute " unnecessarily kept " for "improperly stored" (third paragraph)

GREAT BRITAIN

It is questionable whether the stipulations in this rule are necessary

SWEDEN

12 *Installation of Lifting Gear on Scaffolds*

When lifting gear is to be used on a scaffold, the parts of the scaffold shall be carefully inspected and, if need be, strengthened Any movement of the putlogs shall be prevented and the uprights

[1] The Belgian Government suggests a drafting alteration which affects the French text only

shall be rigidly connected to a solid part of the building at the place where the lifting gear is erected

Delete the whole of the rule and substitute

" When lifting gear is to be used on a scaffold such scaffold shall be so constructed that each part will have a factor of safety not less than that set out in clause 3 of the General Rules " [1]

AUSTRALIA (New South Wales)

Add " No lifting gear shall be installed on any existing scaffold without the approval of the inspecting authority

" Such lifting gear, also those portions of the scaffold affected by stresses set up by such lifting gear, shall have a minimum factor of safety of six (6), based on all stresses due to maximum load and impact "

AUSTRALIA (Queensland)

In the second sentence, after the word " building " insert " if possible "

Reason As drafted the requirement can be complied with only if the building has reached the height of the lifting gear and is inapplicable if the gear is installed high up on the scaffolding

A new paragraph should be added, which might be drafted as follows

" A vertical hoarding shall be erected the whole length of the scaffolding to prevent loads from being caught in the scaffolding when the platform of the lifting gear does not move in guides "

BELGIUM

13 *Periodic Inspection of Scaffolds*

Scaffolds shall be inspected by a competent person once a week, as well as after every spell of bad weather and every interruption in the work

Add " All scaffolds used for the support of heavy materials such as steelwork, masonry, etc , shall be inspected daily "

AUSTRALIA (Federal Capital Territory)

After " competent person " add " holding a scaffolder's licence "

After " work " (at the end), add " and shall be inspected by an inspector of scaffolding every two (2) weeks "

AUSTRALIA (Queensland)

Replace the words " a competent person " by the words " the employer or his agent "

BELGIUM

[1] See the amendment proposed to Rule 1 (3)

Alter to read "Scaffolds shall be inspected by a competent person at least once a week and also before work is resumed after any material interruption"

GREAT BRITAIN

Delete "once a week" and substitute "at suitable intervals prescribed by the competent authority"
Before "interruption" insert "material"

SWEDEN

14 *Use of Scaffolds constructed by Other Contractors*

Where a scaffold has not been erected by or under the superintendence of the employer whose workmen are to use it, the said employer, before allowing work to proceed thereon, shall satisfy himself that the scaffolding is in a stable condition, that the materials used in its construction are sound, and that the required safeguards are in position

He shall further see that the scaffold is kept in good condition for the whole period of the work that he carries out

After the word "scaffolding" (first paragraph) insert "has been erected under the direction of a licensed scaffolder to the satisfaction of the inspecting authority and"

AUSTRALIA (*Queensland*)

After "satisfy himself" (first paragraph) insert "by personal inspection or by inspection by a competent person authorised by him"

CANADA (Ontario)

After "satisfy himself" (first paragraph) insert "by inspection by a competent person appointed by him or by a written certificate from the employer by whom or the person under whose superintendence the scaffolding was erected"

GREAT BRITAIN

15 *Working Platforms*

(1) Every working platform which is more than 2 m above the ground or floor shall be closely boarded or planked

Provided that on inside scaffolds, where the work so requires, there may be a gap between the planks of the platform, in this case the planks shall be fixed so as to prevent the gap from widening

The proviso should be deleted

BELGIUM

Delete "a gap between the planks of the platform" (second paragraph) and substitute "a gap between any two planks of the

platform not exceeding the width of either plank or 20 cm, whichever is the less"

GREAT BRITAIN

The proviso could be deleted

SWEDEN

(2) The width of the platform shall be as follows

(*a*) At least 40 cm if used as a footing only and not for the deposit of any material,

(*b*) At least 80 cm if used for the deposit of material,

(*c*) At least 110 cm if used for the support of any higher platform

Provided that a working platform upon which stone is dressed or roughly shaped shall be at least 130 cm wide and, if used for the support of any higher platform, shall be at least 150 cm wide

The maximum width of a platform supported on putlogs shall as a rule not exceed 160 cm

The minimum width of platforms should be 80 cm

CHILE

The dimensions specified should be altered as follows (*a*) 45 cm, (*b*) 90 cm, (*c*) 120 cm In the last sentence, 160 cm should be altered to 175 cm

FINLAND

Delete "as a rule" from the last line

GREAT BRITAIN

Delete "The width of the platform shall be as follows" and substitute "The platform shall be of sufficient width having regard to the nature of the work, and in any case shall be"

SWEDEN

(*a*) and (*b*) The minimum width of the platform should be at least 60 cm in every case where the only extra load to be carried is a box of mortar If platforms 40 cm in width are allowed the space between the platform and the guard-rail would be too great in the case of bracket scaffolds

The following amended text is suggested

"(*a*) At least 60 cm if used as a footing only or solely for carrying a box of mortar in addition

"(*b*) At least 80 cm if used for the deposit of materials other than a box of mortar"

SWITZERLAND

(3) Every working platform shall, if part of a pole or gabbard scaffold, be at least 1 m below the top of the standards

(4) The thickness of boards or planks which form part of a working platform or which are used as toe-boards shall be pro-

portionate to the distance between the putlogs, but in no case less than 2 5 cm , and their width shall be not less than 20 cm

Planks used as a working platform shall not be less than 4 cm in thickness

AUSTRALIA (Western Australia)

Delete " but in no case less than 2 5 cm , and their width shall be not less than 20 cm " and substitute " and shall be such as to afford adequate security "

SWEDEN.

(5) No board or plank which forms part of a working platform shall project beyond its end support to a distance exceeding four times the thickness of the board or plank

Boards or planks shall not overlap one another unless precautions, such as the provision of bevelled pieces, are taken to reduce the risk of tripping to a minimum and to facilitate the movement of barrows

After " such as " (second paragraph) insert "bevelling of the upper board or plank or "

SWEDEN

(6) Every board or plank which forms part of a working platform shall rest on at least three supports, unless the distance between the putlogs or the thickness of the board or plank is such as to exclude all risk of tripping or undue sagging

Delete " putlogs plank is ' and substitute " any two supports and the width and thickness of the board or plank are "

SWEDEN

(7) Platforms shall be so made that the boards or planks cannot be accidentally displaced

(8) Wherever possible a platform shall extend at least 60 cm. beyond the end of the wall of the building

(9) Every working platform which is more than 2 m above the ground or floor shall be provided on the side away from the wall and at each end with a suitable guard-rail, having a cross section of at least 30 sq cm , at 1 m above the platform, and with toeboards at least 20 cm high

The toe-board shall be as close as possible to the platform so as to prevent the fall of materials and tools

A suitable guard-rail and toe-boards shall where practicable also be provided on the side towards the wall near window and other openings in the wall

The guard-rail and toe-boards used on a scaffold platform shall be placed on the inside of the uprights

The cross section of the guard-rail to be at least 40 sq cm in lieu of 30 sq cm

AUSTRALIA (New South Wales)

After " every " insert " part of a "
After " working platform " insert " or working place "
Delete " which is more than 2 m above the ground or floor " and substitute " from which a person is liable to fall a distance exceeding 2 m "
Delete " on the side away from the wall and at each end "
Delete " above the platform " and substitute " above any standing place immediately adjacent thereto "
After " toe-boards " (first paragraph, first line) insert " of sufficient height to prevent the fall of materials from the platform, but in any case "
Insert proviso similar to proviso at end of Rule 20
Delete the third paragraph

GREAT BRITAIN

Note Amended as suggested by the British Government, the three first paragraphs of this clause would read as follows

Every part of a working platform or working place from which a person is liable to fall a distance exceeding 2 m shall be provided with a suitable guard-rail, having a cross section of at least 30 sq cm , at 1 m above any standing place immediately adjacent thereto, and with toe-boards of sufficient height to prevent the fall of materials from the platform but in any case at least 20 cm high

The toe-board shall be as close as possible to the platform so as to prevent the fall of materials and tools

Provided that the said guard-rails and toe-boards may be removed for the time and to the extent required to allow the access of persons or the transport or shifting of materials

It would be desirable to stipulate that there should be, on the side towards the street, a solid fencing not less than 1 10 m in height

HUNGARY

Delete " 1 m " and " 20 cm " (first paragraph) and substitute respectively " 90 cm " and " 15 cm "
Add to first paragraph " On any platform on which bricks or other materials are placed the toe-boards shall be at least 50 cm high "

SWEDEN

(10) The platforms of suspended scaffolds shall be provided on all sides with guard-rails and toe-boards

Provided that on the side facing the wall the guard-rail need not be at a height of more than 70 cm if the work does not allow of a greater height

The guard-rail and toe-boards shall not be compulsory on the side facing the wall if the workers sit on the platform to work, but in this case the platform shall be provided with cables, ropes or chains affording the workers a firm handhold and capable of holding any worker who should slip

Delete " guard-rail and " in the third paragraph

GREAT BRITAIN

(11) The space between the wall and the platform shall be as small as practicably possible, except where workmen sit on the platform during their work, in which case the space shall not exceed 45 cm

The space between the wall and the platform should in no case be so wide as to make a fall possible

HUNGARY

16 *Gangways, Runs, Stairs*

(1) Every gangway or run shall be at least 40 cm wide when any part is more than 1 5 m above the ground or floor, the maximum slope shall be 70 cm per metre All planks forming a gangway or run shall be so fixed and supported as to prevent undue or unequal sagging

When the slope renders additional foothold necessary, and in every case where the slope is more than 25 cm per metre, proper stepping laths, the full width of the gangway, shall be placed at suitable intervals not exceeding 30 cm , provided that the stepping laths may be interrupted over a breadth of 10 cm to facilitate the movement of barrows

The slope of gangways should not exceed 50 cm per metre and they should in all cases be provided with stepping laths

CHILE.

The dimension 40 cm in the first line should be altered to 50 cm.

FINLAND.

Amend the first sentence to read " Every gangway or run any part of which is more than 1 5 m above the ground or floor shall be closely boarded or planked and at least 40 cm wide "

Before the second sentence insert " Where the gangway or run is used for the passage of materials a clear passageway shall be maintained adequate in width for the movement of the materials without removal of the guard-rails and toe-boards hereinafter required, and in any case of not less width than 65 cm "

GREAT BRITAIN.

Even if the slope of the gangway or run does not exceed 25 cm per metre, it would be desirable that stepping laths should be fixed when the season of rain and frost begins

HUNGARY

Delete " 40 cm ' and " 70 cm ' (first paragraph) and substitute respectively " 50 cm " and " 60 cm "

Delete " so fixed ' (second sentence of first paragraph) and substitute " fixed one upon the other and so "

Delete " not exceeding 30 cm " (second paragraph)

SWEDEN

The Government proposes the deletion of the words "not exceeding 30 cm" (second paragraph), because the interval between the stepping laths is determined by the slope

SWITZERLAND

(2) Stairs shall be provided with guard-rails throughout their length Gangways and stairs over 1 5 m above the ground or floor shall be provided with guard-rails and toe-boards

The guard-rails and toe-boards shall satisfy the requirements of Section 15 (9)

After " gangways " insert " runs "

Delete " over 1 5 m above the ground or floor " and substitute " from which a person is liable to fall a distance exceeding 1 5 m "

GREAT BRITAIN

Delete " and toe-boards " (second paragraph)

SWEDEN

The height above which toe-boards and guard-rails must be fixed should be 2 m instead of 1 5 m so as to make this rule concord with Rule 15 (9) There is no reason for prescribing two different limits, the danger being the same in both cases

SWITZERLAND

17 *General Rules concerning Platforms, Gangways, Runs and Stairs*

(1) Every platform, gangway, run or staircase shall be kept free from any unnecessary obstruction, rubbish, etc If necessary, suitable precautions shall be taken to prevent any platform, gangway, run or staircase from becoming slippery

Delete the second sentence and substitute " If, when and where necessary, effective precautions shall be taken to prevent any platform, gangway run or staircase from becoming slippery "

CANADA (Ontario)

Delete " If necessary suitable precautions " (second sentence) and substitute " Such precautions as are practicable "

GREAT BRITAIN

(2) No part of a working platform, run or gangway shall be supported by loose bricks, drain pipes, chimney pots or other unsuitable material

No working platform, run or gangway shall be supported by an eaves gutter, a balcony or its coping, a lightning conductor or other unsuitable parts of a building

Before " unsuitable " (first paragraph) insert " loose or ".

GREAT BRITAIN

Delete the clause

SWEDEN

(3) No working platform, gangway or run shall be used for working upon until its construction is completed according to these regulations and the prescribed safeguards properly fixed

18 *Trestles*

No trestle scaffold of more than two tiers or exceeding a height of 3 m from the ground or floor or erected on the platform of a suspended scaffold shall be used

The width of a trestle scaffold erected on a platform shall be such as to leave sufficient free space on the platform for the transport of materials

Trestle scaffolds shall be properly framed, hinged together at top and fitted with strong ropes to prevent spreading

AUSTRALIA (Federal Capital Territory)

Trestles should be firmly attached to the platform and braced so as to prevent displacement

HUNGARY

19 *Ladders*

(1) Every ladder used as a means of communication shall rise at least 1 m above the landing place, shall not stand on loose bricks or other loose packing, but shall have a level and firm footing It shall be securely fixed so that it cannot move from its top rest, undue sagging shall be prevented

Every ladder which cannot be secured at the top shall be securely fastened at the base or, if that is impossible also, shall have a man stationed at the foot to prevent slipping

Delete " 1 m " and substitute ' 2 m "

AUSTRALIA (Western Australia).

Delete " at least 1 m above the landing place " (first paragraph) and substitute " at least 1 m above the highest point to be reached by any person using the ladder "

After " from its top " (first paragraph) insert " or bottom points of "

At end of first paragraph add " It shall be equally and properly supported on each runner "

GREAT BRITAIN

Delete " Every ladder landing place " (first paragraph) and substitute " Only the runners of a ladder used as a means

of communication shall rise above the landing place, and the runners shall rise above it by at least 1 m The ladder "

Delete " from its top rest " (first paragraph)

The second paragraph might be deleted

SWEDEN

(2) The ladders connecting the different floors shall be staggered and a protective landing with the smallest possible opening shall be provided at each floor Such ladders shall not be used for the transport of loads exceeding 50 kg

Delete " the smallest possible opening " and substitute " an opening of sufficient dimensions "

BELGIUM

Delete the second sentence

SWEDEN

(3) A ladder having a missing or defective rung shall not be used

No ladder made of sawn timber shall be used unless it is of adequate strength and the rungs are securely notched in or housed

Roofers' and painters' ladders shall not be used by workmen in other trades

Add to the second paragraph " No such ladder shall exceed (14 ft) 4 26 m in length "

AUSTRALIA (Queensland)

Replace the first paragraph by the following

" Wooden ladders shall be constructed with uprights of adequate strength made of wood free from defects and having the grain of the wood running lengthwise, and with rungs made of wood free from defects and mortised into the uprights If the tenons are not secured by wedges the ladders shall be reinforced by bolted cross-pieces A ladder of which any rung is missing or defective shall not be used "

BELGIUM

Delete the second paragraph and substitute

" No ladder shall be used in which any rung depends for its support on nails, spikes or other similar fixing "

GREAT BRITAIN

Delete the clause and substitute " Ladders shall be safe in respect both of the materials of which they are made and of their construction "

SWEDEN

20 *Fencing of Openings*

Every opening left in a floor of a building or in a working-platform for an elevator-shaft or stairway, or for the hoisting of material or for access by workmen or for any other purpose shall

be provided with a suitable guard-rail and toe-board or with other efficient means to prevent the fall of persons or articles into the opening

The same shall apply to every opening in a wall, if less than 1 m from a floor

This fencing shall remain until it becomes necessary to remove it in order to complete the permanent enclosure

Provided that the said guard-rails, toe-boards or other safeguards may be removed for the time and to the extent required to allow the access of persons or the transport or shifting of materials

In the second paragraph, 1 m should be altered to 70 m

FINLAND

Delete " into the opening " (end of first paragraph)

After " toe-board " (first paragraph), insert " which will satisfy the requirements of Rule 15 (9) "

GREAT BRITAIN

After " toe-board " (first paragraph) insert " of sufficient height "

Delete the second paragraph and substitute " The same shall apply to every door or window opening if less than 70 cm from a floor "

SWEDEN

21 — *Roof Work*

(1) No person shall be employed on a roof on which there is a risk of falling, by reason of the pitch, the nature of the surface or the state of the weather, unless efficient precautions are taken to prevent the fall of persons or materials

On glass roofs, or roofs covered with fragile materials, special precautions shall be taken to prevent the workers from inadvertently stepping on them and to facilitate the safe carrying out of repairs

Delete " there is a risk of falling " (first paragraph) and insert after " weather " " there is a risk of falling a distance exceeding 2 m "

GREAT BRITAIN

(2) No person shall be employed on extensive work at the outside of any roof which has a pitch of over 34° (2 3) or is slippery unless at least the following facilities are provided thereon

(*a*) A suitable working platform, securely supported and of a width of not less than 40 cm , and

(*b*) Suitable and sufficient ladders, duck ladders, or crawling boards properly secured

Further, only experienced workmen who are physically and psychologically suitable shall be employed on such work

Replace the clause by the following "No person shall be employed on extensive work on the outside of any roof which has a pitch of over 1 3 or which is slippery unless at least the following safeguards are provided

(*a*) a guard-rail or working platform of suitable material and construction,

(*b*) suitable ladders, duck ladders or crawling boards fixed so as to be safe

A guard shall be placed at the bottom of the roof even when the pitch is less than 1 3

Further, only experienced workmen who are physically and psychologically suitable shall be employed on such work"

SWEDEN

(3) When it is impossible to use the safeguards mentioned in paragraph 2 above, safety belts with ropes enabling the wearers to lash themselves to a solid structure shall be supplied to the workers and used by them

Add at the end "When it is practically impossible to fasten the ropes to a solid structure, the worker shall be given the help of another person to hold the ropes securely"

SWEDEN

22 *Miscellaneous Rules*

(1) Any part of the premises in which any person is employed or through which any person may pass shall be covered in such a manner as to protect such persons from being struck by any falling materials, tools or other articles

If it is impossible to cover any workplace or passageway, efficient precautions shall be taken to prevent falls of objects from any height exceeding 3 5 m [1]

Scaffold materials, tools, or other objects shall not be thrown down, but be properly lowered

Insert a new clause 'Safe means of access shall be provided to all working platforms and other working places"

[1] Referring to the amendment proposed by the Employers' representatives on the Committee of the Conference in 1936—to omit "be covered in such a manner efficient precautions shall be taken" (first and second paragraphs) and substitute "if there is a risk that such person will be struck by any falling materials, tools or other articles, be covered or protected in such other manner as is best calculated"—the Canadian (Ontario) Government suggests the substitution of "will effectively provide such protection" for "is best calculated"

Delete the first two paragraphs and substitute

" Any part of the premises where any person at work or passing would be liable to be struck by materials, tools, or other articles falling more than 3 5 m shall be covered in such a manner as to protect such persons, unless other effective steps are taken to prevent falls of objects from such height "

GREAT BRITAIN

Add the following paragraph at the beginning of the clause

" Any open joisting on or under which any person is required to work shall be covered so as to prevent the workers from falling through the joisting '

Delete " but be properly lowered (end of last paragraph) and substitute " unless proper precautions are taken "

SWEDEN

(2) Every working-place and approach thereto shall be efficiently lighted

Delete " Every working-place and approach thereto " and substitute " Every working and other place to which access is required for any person and every means of approach thereto"

GREAT BRITAIN

(3) During all construction, repair, painting or demolition of buildings, all necessary precautions shall be taken to prevent the workers from coming into contact with electric wires or equipment, including low-tension wires and equipment

It should be stipulated that electric wiring should be insulated and that safeguards against injury (wood casing) be provided at dangerous places

HUNGARY.

(4) Protruding nails shall be removed from all materials used in the construction of scaffolding or falsework

Add at the end " and immediately upon dismantling any such scaffolding, any protruding nails shall be removed before it is moved to another part of, or away from, the building "

CANADA (Ontario)

Delete the clause and substitute

' Boards or other timber with projecting nails shall not be allowed to remain in any place where persons are liable to be injured by them ".

GREAT BRITAIN.

Before " removed ' insert " knocked in or

Delete " used in the construction of scaffolding or falsework " and substitute " intended for use on a building site "

SWEDEN

Add a new clause

" All flooring or decking upon which workmen are required to work or walk shall be at all times kept free from building material, debris, etc "

AUSTRALIA (Queensland)

Add a new clause

" No materials on the site shall be so stacked or placed as to cause danger to any person "

GREAT BRITAIN

Rubbish and loose pieces of material, timber with projecting nails, etc , should not be allowed to remain on the site, they should be cleared away periodically

Timber used for walling should be stacked as soon as it is taken out of use

HUNGARY

PART II

HOISTING APPLIANCES

23 *General Rules*

(1) The working gear and the anchoring and fixing appliances of every crane, crab and winch and of all other hoisting machines and tackle shall

(*a*) be of good mechanical construction, sound material, adequate strength and substance and free from defect,

(*b*) be kept in good repair and in good working order,

(*c*) as far as the construction permits be examined in position at least once in every week by the driver or other competent person

Insert a new sub-clause

" (*a*) be so designed and constructed that factors of safety of not less than four (4) and six (6) shall obtain, respectively, in the members of the frame structure and gearing when such members are subjected to maximum load Safe working loads shall be determined on this basis, "

and delete " strength and " from the existing clause (*a*)

AUSTRALIA (New South Wales)

Insert a new clause at the beginning

" All hoisting appliances shall be designed and periodically inspected and tested to the requirements of the State inspecting authority, and shall have the maximum safe working load, speed, and/or radius clearly marked on each machine or unit of hoisting appliance "

AUSTRALIA (Queensland)

In clause (*a*) before " defect " insert " detectable " ,

CANADA (Ontario)

Delete " The working gear and the " and substitute " Every part of the structure, working gear and "
In clause (*a*) before " defect " insert " patent "

Insert a new sub-clause at end

" (*d*) Adequate steps shall be taken to ascertain the safe working load of every hoisting machine "

GREAT BRITAIN

(2) Every crab, winch and pulley block used in the hoisting or lowering of any load, and every derrick pole or mast used in the hoisting or lowering of any load weighing 1,000 kg or more, shall have the maximum safe working load plainly marked upon it

Every crane shall have the safe working load or, in the case of a crane fitted with a derricking jib, the safe working loads at various radii of the jib plainly marked upon it

Delete " weighing 1,000 kg or more " (first paragraph)

AUSTRALIA (Queensland)

(3) A crane, crab, winch or any other hoisting appliance, or any part of such appliance, shall not be loaded beyond the safe working load

Provided that for the purpose of making tests of a crane or other hoisting appliance or gear the safe working load may be exceeded by such amount as the competent person appointed to carry out the tests may authorise

Delete the proviso

SWEDEN.

(4) During hoisting operations effective precautions shall be taken to prevent any person from standing or passing under the load

No load shall be left suspended from a hoisting appliance unless there is a competent person actually in charge whilst the load is so suspended

Delete ' effective precautions " (first paragraph) and substitute " such precautions as are practicable "

CANADA (Ontario)

Delete " unless there is a competent person actually in charge whilst the load is so suspended " (end of second paragraph) and substitute " unless the working of the appliance is under effective control '

SWEDEN

(5) No person under 18 years of age shall be employed to handle hoisting appliances or to give signals to the operator

Every crane driver or hoisting-appliance operator shall be properly qualified

Delete " properly qualified " (end of second paragraph) and substitute " in possession of a certificate of competency issued by a competent authority "

CANADA (Ontario)

(6) When any hoisting or lowering is performed by means of a crane and the crane driver or person operating the crane is unable to see the load in all its positions, one or more look-out or signal men shall be stationed so as to see the load throughout its travel and give the necessary signals to the crane driver or person operating the crane

There shall be a distinctive signal for each operation to be performed, and the signal shall be such that the person to whom it is given shall be able to hear or see it easily Where a sound signal is used, it shall be made by an efficient device

Every signal wire shall be adequately protected from accidental interference

Add before the last paragraph

" Under normal working conditions one (1) person shall be appointed as being responsible for the giving of all signals to the crane driver "

AUSTRALIA (Queensland)

After " sound " (second paragraph) insert " or colour " Add at end " Effective limit stops shall be placed on all crane runways "

CANADA (Ontario)

(7) Motors, gearing, transmissions, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards If the safeguards have to be removed, they shall be replaced as soon as possible by the persons removing them

Delete " by the persons removing them

SWEDEN

(8) Where reasonably practicable, the driver's cab on every crane or other hoisting appliance shall, before the crane or appliance is put into general use, be completely erected, or other adequate provision made for the protection of the driver from the weather During cold weather the cabin of each power-driven crane or other hoisting appliance in use shall, where reasonably practicable, be adequately heated by suitable means

Delete " every crane or other hoisting appliance and substitute ' every power-driven crane or other similar hoisting appliance '.

SWEDEN

The following clause should be added

(9) For hoisting buckets of mortar, hooks with safety catches and ropes at least 1 cm in diameter and of adequate strength shall be used

HUNGARY

24 *Winches, Crabs and Pulleys*

(1) Every part of the framework of every crab or winch, including the bearers, shall be of metal

This stipulation seems excessive in the case of portable hoisting appliances

DENMARK

Delete " including the bearers " and substitute " the maximum working load of which exceeds 1 5 metric tons "

SWEDEN

(2) When wire ropes are used, the diameter of the pulleys or drums shall not be less than 400 times the diameter of the wires in the rope For the purposes of the present requirement no account shall be taken of the core of the rope

When winch drums are grooved, the grooves shall be such that the different turns of rope are not squeezed together

The drums shall be provided with flanges that prevent the rope from slipping off the drum

Delete clauses (2) and (3) and substitute the following

(2) (*a*) The diameters of the drums used shall be not less than those given in the following table for speeds not exceeding 120 feet per minute

MINIMUM DRUM DIAMETER (D = Diameter of Rope)

4 × 37	6 × 19	6 × 24	6 × 37
20D	23D	19D	16½D

For each increase in speed of 60 feet per minute 2D shall be added to the diameter for the drum

(*b*) Rope drums for power cranes or hoists shall be machine-grooved and the contour at the bottom of grooves shall be circular over an angle of 120 degrees The radius of the groove shall be larger than the radius of the rope by the following amounts

For ropes up to and including two (2) inch circumference $^1/_{32}$ inch minimum

For ropes of $2^1/_8$ to $2^3/_4$ inch circumference, inclusive $^3/_{64}$ inch minimum

For ropes of 3 to $3^1/_2$ inch circumference, inclusive $^1/_{16}$ inch minimum

For ropes of $3^3/_4$ inch circumference and larger $^3/_{32}$ inch minimum

Grooving shall be smoothly finished, and be free from surface defects liable to injure the rope

(*c*) The grooves on the barrel shall be so pitched that there is a clearance of not less than $^1/_{16}$ inch between neighbouring turns of rope

(*d*) Rope anchorages shall be readily accessible, and if the rope is wound on the barrel in more than one layer the anchorage shall be located clear of the winding, preferably outside the flanges

(*e*) The angle between the rope and a plane perpendicular to the axis of the barrel shall not exceed five (5) degrees

The provisions of paragraphs (*b*) and (*c*) of this clause shall not apply to drums on which overlapping of the rope occurs

AUSTRALIA (Queensland)

Delete the first paragraph and substitute " When wire ropes are used, the diameter of the pulleys or drums shall not be less than 400 times the diameter of the wires in the rope minus the diameter of the core "

FINLAND

Delete the clause and substitute " When wire ropes are used, the minimum diameter of the pulleys or drums shall be in proper proportion, as prescribed by the competent authority, to the diameter of the rope or wire "

SWEDEN

(3) (*a*) Every crane, crab and winch shall be provided with an efficient brake or brakes and with any other safety device required to prevent the fall of the load when suspended

(*b*) The lever controlling the link motion reversing gear of every steam crane shall be provided with a suitable spring-lock arrangement

Delete the clause (see the amendment suggested under clause (2))

AUSTRALIA (Queensland)

Delete " and with any other safety device suspended " (sub-clause (*a*)) and substitute " and if any other safety device is in the circumstances and in addition to the brake or brakes reasonably required to prevent the fall of the load when suspended, such other device shall be provided "

CANADA (Ontario)

Add to paragraph (*a*) " If there is both a brake and a spring-lock arrangement, the two shall be combined into a so-called automatic load sustained brake "

SWEDEN

25 *Suspension and Attachment*

(1) (*a*) All cables or ropes used on hoisting appliances for raising or lowering materials shall be long enough to leave at least two turns on the drum when they are fully unwound

(*b*) No rope shall be used over a grooved drum or pulley if its diameter exceeds the pitch of the drum grooves or the width of the pulley groove

(*c*) Wire ropes shall be such as to have a safety factor of eight under the maximum load In calculating the dimensions of wire ropes they shall be assumed to be under tensile stress only

(*d*) No chain or wire rope which has a knot tied in it shall be used for raising or lowering any load

(*e*) Every hoisting or derricking rope or chain shall be securely fastened to the barrel of the crane, crab or winch with which it is used

(*f*) Each temporary attachment or connection of a rope, chain or other appliance used in the erection or dismantling of a crane shall be secure

Delete " when they are fully unwound " (end of sub-clause (*a*)) and substitute " at every operating position of the appliance "
Before " eight " (sub-clause (*c*)), insert " at least "
Before " secure " (end of sub-clause (*f*)) insert " adequate and "
Add a new sub-clause

" (*g*) Every rope used in hoisting or lowering or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect "

GREAT BRITAIN

Delete paragraph (*c*) and substitute " The permissible dimensions of wire ropes shall be as determined by the competent authority "
In paragraph (*e*), after " securely ' insert " and properly "
Paragraph (*f*) might be deleted

SWEDEN

(2) Every chain, ring, hook, shackle or swivel for hoisting or lowering shall have been tested and be marked in plain figures and letters with the safe working load

It would certainly not be possible to comply with this requirement in the case of all chains, etc

DENMARK

Delete " shackle or swivel " and substitute " shackle, swivel and pulley block used "
After " lowering " insert " or as a means of suspension "
After " load " add " and an identification mark "
Add " No such gear shall be loaded beyond its safe working load, except for the purpose of making tests "
Add " Every chain, ring, hook shackle and swivel used in hoisting or lowering or as a means of suspension which has been lengthened, altered or repaired by welding shall be adequately tested and examined before being again taken into use "

GREAT BRITAIN

(3) Every hook used for hoisting or lowering shall either be provided with an efficient catch to prevent the displacement of the sling or load from the hook or shall be of such shape as to reduce as far as possible the risk of such displacement

The parts of hooks liable to come into contact with ropes or chains during the raising or lowering of loads shall be rounded

(4) Where double or multiple slings are used for hoisting or lowering purposes the upper ends of the slings shall be connected by means of a shackle or ring and not be put separately into a lifting hook

When bulky objects are being raised or lowered the maximum safe load of slings shall be determined with reference not only to their strength but also to the angle of the legs

Sharp edges of a load shall not be in contact with slings, ropes or chains

(5) The chains, ropes and slings of hoisting appliances shall be periodically examined by a specially competent person not in the contractor's employ

This person's findings shall be entered on a certificate or in a special register

Delete ' not in the contractor's employ " (end of first paragraph) and substitute " acting for the inspecting authority "

AUSTRALIA (Queensland)

Delete ' a specially competent person not in the contractor's employ " and substitute " by State officials appointed for the purpose by the competent Minister "

BELGIUM

This stipulation seems to be formulated in too wide terms In certain hoisting appliances examination by a specially competent person not in the contractor's employ seems hardly necessary

DENMARK

Delete " not in the contractor's employ (first paragraph)

SWEDEN

26 *Cranes*

(1) The stage for every crane shall be built of sound material and shall be of good mechanical construction having regard to its height and position, and to the lifting and reaching capacity of the crane

The platform shall be of sufficient area for the driver or operator and signalman, and, in the case of each guy derrick crane, for the operator of the slewing mechanism

The platform shall be close-planked or plated, securely fenced according to regulation, and provided with safe means of access

(2) Every fixed crane shall be securely anchored, or adequately weighted by suitable ballast firmly secured to ensure stability In the latter case a diagram showing the position and size of the counterweights shall be posted up in the driver's cab

Every travelling crane shall be provided with a device for anchoring it to the rails of the crane track

Add at the end of the first paragraph " or in some other suitable place "

SWEDEN

(3) On every stage, gantry or other place on which a crane moves, an unobstructed passageway shall be maintained at every position of the crane This passage shall have a width of at least 60 cm between the moving parts of the crane and the fixed parts of such stage, gantry or place

Provided that if at any time it is impracticable to maintain such a passageway at any place or point, all reasonable steps shall be taken to prevent the access of any person to such place or point at such time

After ' fixed parts " (last line of first paragraph) insert " or edge "

GREAT BRITAIN

(4) All rails on which a travelling crane moves shall

(*a*) be of adequate section and have an even running surface;

(*b*) be jointed by fishplates or double chairs,

(*c*) be securely fastened to sleepers

The whole track, whether resting on the ground or raised above it, shall be properly laid and any supports shall be of sufficient strength and maintained in good condition The ends of the track shall be provided with shoes or buffers

Provided that requirements (*b*) and (*c*) of this regulation shall not apply to an overhead crane on bridge rails The track and the turntable of any such crane shall be installed with the greatest care and in conformity with sound technical principles

Delete " to an overhead crane on bridge rails " (first sentence of proviso) and substitute " if other adequate steps are taken to ensure the proper junction of, and to prevent any material variation in the gauge of, the rails "

GREAT BRITAIN

(5) No crane shall be used unless it has been tested and examined by a competent person and a certificate of such test and examination in a prescribed form specifying the safe working load, at various radii of the jib, including the maximum radius at which the jib can be worked, has been obtained from the person who made the test and examination

The safe working load so specified at any radius shall be not more than 80 per cent of the maximum load which the crane has stood at that radius during the application of the test

Provided that no crane shall be used to move loads heavier than the working load indicated by the maker

The examination, and if necessary the tests, mentioned in this regulation shall be repeated after all substantial alterations or repairs to the crane

After " competent person " (first paragraph) insert " acting for the inspecting authority "

Delete the second paragraph and substitute

" The safe working load so specified at maximum radius or the safe working loads at specified radii within the maximum, shall be calculated from the design of the crane and having regard for all stresses in the crane at maximum safe load intended

" Test loads shall be maximum safe working load plus twenty-five (25) per cent "

Delete " by the maker " (third paragraph) and substitute " on the certificate of inspection "

AUSTRALIA (Queensland)

Delete " a competent person " (first paragraph) and substitute " State officials appointed for the purpose by the competent Minister "

BELGIUM

Amend the proviso to read " No safe working load so specified shall be greater than the working load indicated by the maker "

Delete " if necessary the " (last paragraph)

GREAT BRITAIN.

Detailed rules should be included for the testing of cranes, as in Rule 27 for derrick cranes

HUNGARY

Add at the end of the first paragraph " The examination and tests shall be repeated at regular intervals to be prescribed by the competent authority "

Delete " after all substantial alterations or repairs to the crane " (last paragraph) and substitute " after any substantial repair to, or any change in the arrangement of, the crane "

SWEDEN

27 *Derrick Cranes*

(1) The maximum radius at which the jib may be worked shall be clearly indicated on the crane and when at this radius there shall be not less than two dead turns of rope on the derricking drum

The jib of a Scotch derrick crane shall not be erected between the back-stays of the crane

(2) Every crane having a derricking jib shall be provided with an effective inter-locking arrangement between the derricking clutch and the pawl sustaining the derricking drum, except where

the hoisting drum and the derricking drum are independently driven or the mechanism driving the derricking drum is self-locking

The words "*or* the mechanism" should no doubt read "*and* the mechanism"

DENMARK.

(3) Where the guys of a guy derrick crane cannot be fixed at approximately equal spacing, such other provision shall be made as will ensure the safety of the crane

The whole of the appliances for the anchorage of a crane shall be examined on each occasion before erection, and the erection shall be supervised by a competent person

Each crane shall after each erection on a building site and before use be tested *in situ* for anchorage, by a competent person, by the imposition on each anchorage of the maximum uplift or pull exerted either by a load of 25 per cent above the maximum load to be lifted on the site by that crane or by a less load arranged to exert an equivalent pull on the anchorage

If the maximum load which the person making such test or examination considers may safely be lifted by that crane as anchored is less than the safe working load of the crane when properly anchored, a loading diagram appropriate to the crane anchorage shall be affixed in a position where it can readily be seen by the crane driver

Delete "a competent person" (third paragraph) and substitute 'State officials appointed for the purpose by the competent Minister"

BELGIUM

Delete "on the site by that crane" (third paragraph) and substitute "by the crane as erected"

GREAT BRITAIN

28 *Automatic Safe Load Indicators*

No crane whether having a fixed jib or a derricking jib shall be used unless it is fitted with an automatic indicator which shall indicate clearly to the driver or person operating the crane when the load being moved approaches the safe working load of the crane at any inclination of the jib

The indicator shall give an efficient sound signal when the load being moved is in excess of the safe working load of the crane at any inclination of the jib

This requirement shall not apply to

(*a*) any guy derrick crane,

(*b*) any hand crane which is being used solely for erecting or dismantling another crane,

(*c*) to any crane having a maximum safe working load of 1,000 kg or less,

Provided that in all such cases a table showing the safe working loads at various radii of the jib shall be kept attached to the crane

Load indicators of this kind are not used in Sweden The proposed stipulations seem very stringent, and it is questionable if they are necessary

SWEDEN

The device mentioned in this rule is not known in Switzerland The Government is of opinion that these provisions should be deleted

SWITZERLAND

29 *Various Rules concerning Crane Operation*

(1) A crane shall not be used otherwise than for direct lifting or lowering of a load unless its stability is not thereby endangered No load which lies in the angle between the back-stays of a Scotch derrick crane shall be moved by that crane

(2) Where more than one crane or winch is required to lift o lower one load, the machinery, plant and appliances used shal be so arranged and fixed that no such crane or winch shall at any time be loaded beyond its safe working load or rendered unstable in the hoisting or lowering of the load Further, a person shall be specially appointed to co-ordinate the operation of the appliances working together

(3) When a load is thought to approach the maximum safe working load a trial shall be made by raising the load a short distance to ensure that the hoisting appliance can carry it safely

30 *Hoists*

Hoists used for raising and lowering materials shall satisfy the following requirements

(1) Hoist shafts shall be provided with solid walls on all sides at the ground level, and on the side towards the platform on scaffold platforms Except as regards approaches the walls shall extend at least 2 m above the floor or platform

In Denmark *solid* protecting walls are not required, but simply a firm fencing the height of which must not be less than 1 9 m Judging by experience, more stringent stipulations in this respect are not necessary

DENMARK

It is desirable that hoist shafts should be provided with solid walls on all sides, only the openings for loading and unloading being provided with movable gates

HUNGARY

Delete the whole clause (including the introductory phrase) and substitute " Hoists, that is to say, hoisting appliances fitted with cages or platforms and running in guides, shall, when used for raising or lowering materials, satisfy the following requirements

(1) Hoist shafts shall be provided, at the ground level and at every platform of the scaffolding, except at the points of access to the hoist, with solid protecting walls at least 2 m high "

SWEDEN

The Government suggests that clauses (1) and (2) should be replaced by the following text

" Measures shall be taken to prevent any person from being struck by the moving platform and to prevent any fall during the loading and unloading of the platforms "

Reason Since the hoists used on building jobs differ very considerably and the conditions in which they are used are also very different, the Government is of opinion that the rule to be laid down should be limited to a general provision and should not go into detail

It would hardly be possible to secure observance in practice of the rule requiring gates closing automatically in the case of hoists serving several storeys Moreover, in the case of hoists with turntable platforms the rule has no purpose

In the majority of cases these hoists work in conditions which differ from those applying to lifts and hoists in permanent buildings and installations, inasmuch as the working of the apparatus is entrusted to a worker who as a rule can watch the movement of the platform throughout its whole course

SWITZERLAND

(2) Approaches to hoists shall be provided with solid gates at least 1 m high that close automatically when the hoist platform leaves the landing

It has not been found necessary that the gates should be solid Hitherto an automatic closing barrier has been found sufficient, and it is questionable whether stipulations so strict as those in the draft are entirely justified

DENMARK

It might be sufficient to provide for movable gratings instead of automatically closing solid gates

HUNGARY

Delete the clause and substitute ' Approaches to hoists shall be effectively closed when the cage or platform of the hoist leaves the landing '

SWEDEN

See the comment on the preceding clause

SWITZERLAND.

(3) Approaches to hoists shall be adequately lighted

(4) The guides of hoist platforms shall offer sufficient resistance to bending and in the case of jamming by a safety catch shall offer sufficient resistance to buckling

Insert at the beginning "If the hoist is fitted with safety catches'

SWEDEN

(5) The platform shall be so constructed that safe transport is ensured

Delete "that safe transport is ensured" and substitute "as to provide the best practicable security from accidents"

CANADA (Ontario).

Delete the clause

SWEDEN.

(6) On platforms for truck transport the trucks shall be efficiently blocked in the middle of the platform

Delete "in the middle of" and substitute "in a safe position on"

GREAT BRITAIN

(7) The platform shall be provided with a safety catch that prevents it from falling if the rope or a part of the suspension gear breaks

Delete the clause (See clause 13)

SWEDEN

Delete the clause

Reason The security afforded by safety catches is problematical even in the case of fixed installations and is still more so in the case of temporary installations Such catches are superfluous if the platform is blocked at each stopping-place as required by clause 13

SWITZERLAND

(8) (*a*) Counterweights consisting of an assemblage of several parts shall be made of specially constructed parts rigidly connected together

(*b*) The counterweight shall run in guides

Delete paragraph (*a*)

SWEDEN

(9) (*a*) If two or more wire ropes are used the load shall be equally distributed between them

(*b*) Each suspension rope shall be in one piece

(10) (*a*) The rope ends shall be fastened to the platform attachment by splicing and tight binding with steel wire, by sealing or by clamping with the aid of rope clamps, wherever possible, thimbles shall be used

(*b*) Ropes shall be attached to the drum by being passed through the drum and fastened inside or by some equivalent method

It is questionable if the second paragraph is necessary

SWEDEN

(11) (*a*) The length and diameter of ropes shall be in conformity with the provisions of Section 25 (1) (*a*) and (*c*) respectively

(*b*) The dimensions and construction of pulleys and drums shall be in conformity with the provisions of Section 24 (2)

(12) (*a*) It shall only be possible to start the winding engine for raising or lowering from its position of rest It shall not be possible to start the engine from the platform

(*b*) Pawls and ratchet wheels with which the pawl must be disengaged before the platform is lowered shall not be employed

(*c*) Hoists that can be controlled from the winding engine shall be so installed that the engine attendant can always see the position of the platform from his stand

The stipulation in the first sentence of sub-clause (*a*) does not seem to be indispensable provided that a system of signalling between the points of access to the lift and the winding engine is arranged so that the person working at the platform is able to give a clear indication to the driver of the winding engine when the platform is put in motion

DENMARK

The meaning of sub-clause (*a*) does not seem to be clear

GREAT BRITAIN.

Add to sub-clause (*c*) " If the conditions are such that the stopping-places cannot be seen from the engine attendant's stand, special arrangements for signalling shall be made "

Reason The conditions may be such that a direct view between the engine attendant and the platform stopping-places is not always possible

SWITZERLAND

(13) When the platform is at rest the brake shall be applied automatically In addition, during loading and unloading the platform shall be blocked by catches or other similar devices

No necessity has been found in Denmark for requiring automatic application of the brake when the platform is at rest

DENMARK

(14) Hoists shall be provided with devices that stop the winding engine as soon as the platform reaches its highest stopping-place

Add a new paragraph ' Sufficient space shall be left above the highest stopping-place to allow sufficient unobstructed travel of the cage in case of overwinding "

SWEDEN

Delete the clause

Reason The installation of stopping devices would be very complicated in the case of hoists worked by transmission gear, since this system makes it impossible to use an electrical device Moreover, the height of the stopping-place of the hoist very often varies This rule could be applied only in the case of lifts which can be set in motion without the aid of an engine attendant, as is the case for example with electrical installations In the Government's view, only lifts of this type can in practice be fitted with stopping devices

SWITZERLAND

(15) The following notices shall be posted up conspicuously and in very legible characters

(*a*) on the platform the carrying capacity in kilograms,

(*b*) on the winding engine the lifting capacity in kilograms,

(*c*) on every approach to the hoist Goods Hoist ! Use by persons prohibited

Add after " kilograms " (in sub-clauses (*a*) and (*b*)) " or other appropriate standard term of weight "

AUSTRALIA (Queensland)

Sub-clause (*c*) suggests that Rule 30 is not intended to apply to hoists on which persons are raised or lowered as well as materials

GREAT BRITAIN

At every point of entry to the hoist a notice should be posted up bearing the words " Travelling on the platform is dangerous and is forbidden "

Rule 30 should be completed by a stipulation that the starting of the engine should be so arranged as to ensure that the hoist will begin to move slowly and smoothly

HUNGARY

Add a new clause

" (16) No hoist shall be used unless it has been tested and examined by a competent person and unless a certificate in the prescribed form has been given by that person

" The examination and tests shall be repeated at regular intervals to be prescribed by the competent authority

" The examination and, if necessary, the tests shall be repeated after every alteration in, or repair to, the hoist and every alteration in the arrangement of the hoist "

SWEDEN

31 *Miscellaneous Rules*

(1) Precautions shall be taken to safeguard the workmen examining or lubricating a crane or hoist

(2) No person shall be lifted or carried by a crane except on the driver's platform, or ride in a barrow hoist, or in a hod hoist, or in a lift, provided that a person may ride in a lift if the lift complies with the regulations applying to factory lifts carrying passengers

See note on Rule 30 (15) (*c*) Some countries may not have regulations for factory lifts carrying passengers which would be appropriate for building operations It would seem that the provision to be made for the safety of persons using hoists in connection with building operations requires further consideration Perhaps Rule 30 should be reconsidered, with reference to the question of applying it, with some additions, where the hoist is used for persons as well as materials

GREAT BRITAIN.

This clause might be deleted

SWEDEN.

(3) No article or material shall be lifted or lowered in such a way that it may be caused to fall by a sudden shock; in particular the lifting or lowering of loose material and of loaded wheel-barrows on a platform not closed in shall be prohibited

Provided that this regulation shall not apply if adequate precautions are taken to prevent persons from being injured by falling materials or articles

Delete " that it may be caused to fall by a sudden shock ' and substitute " that it may fall "

SWEDEN.

(4) In hoisting a barrow, the wheel shall not be used as a means of support unless efficient steps are taken to prevent the axle from slipping through the bearing

This clause might be deleted

SWEDEN.

(5) When a special ginpole is used, it shall be secured by ropes in such a way that it cannot knock against the scaffolding

(6) Jibs for hoisting materials shall not be attached to standards or extension poles

When no jib but only a rope pulley is used, the latter may be attached to a cross beam fixed to at least two standards or extensions in the way prescribed for ledgers, these cross beams shall not at the same time serve as ledgers for the scaffold

Add at the end of the first paragraph " unless the standards or extension poles are of adequate dimensions and securely guyed "

SWEDEN

(7) If a hoisting appliance or any part thereof moves along a scaffold, adequate measures shall be taken to prevent persons on the scaffold from being struck by the appliance or any part of it

(8) The hoisting of loads at points where there is a regular flow of traffic shall be carried out in an enclosed space If this should be impossible, e g in the case of bulky objects, measures shall be taken to hold up or divert the traffic for the time being

(9) No basket depending entirely for support on its handles shall be used for hoisting or lowering materials

Delete the clause and substitute

" Every part of a load in course of being hoisted or lowered shall be adequately suspended and supported so as to prevent danger In particular, every receptacle used for hoisting bricks, tiles, slates or other material shall be so closed as to prevent the fall of any of the material "

GREAT BRITAIN

This clause might be deleted

SWEDEN

Add a new clause

" (10) Adequate steps shall be taken to prevent a load in course of being hoisted or lowered from coming into contact with any object so that part of the load or object may become displaced "

GREAT BRITAIN.

PART III

SAFETY EQUIPMENT AND FIRST AID

32 *Safety Equipment*

Where necessary the employer shall provide the workmen with a sufficient number of goggles and safety belts, the latter to have life lines of sufficient length and strength

Before ' goggles " insert " respirators,'

SWEDEN

33 *Rescue Equipment*

When work is carried on above rivers, ponds or canals the employer shall take all the necessary measures and furnish all the necessary means for the prompt rescue of any worker who may fall into the water

Add

' Where the nature of the work performed is such that workmen may be overcome by failure of the air supply or by gas, as in the case of deep sinking for foundations or in tunnelling, rescue equipment, including compressed air or oxygen helmets, shall be kept in readiness for immediate use

" Where workmen are employed on air lock work at air pressures above atmospheric pressure, similar rescue equipment shall be provided and, in addition, there shall be provided a suitably designed and equipped steel ' Pressure Hospital ' capable of accommodating two (2) or more workmen at air pressures equal to the pressure at which the men were working prior to removal to hospital

" Such ' Pressure Hospital ' shall be under the charge of a qualified medical practitioner, who shall also examine men before they enter the air lock and upon their return to the surface "

AUSTRALIA (Queensland)

If the rules are to apply only to the construction of buildings (houses), this rule might be deleted

SWEDEN

34 *First-Aid Equipment*

On every building under construction the employer shall provide in a readily accessible place or places a sufficient number of first-aid boxes or cupboards Each such box or cupboard shall contain suitable first-aid materials and shall be plainly marked

Add

" There shall always be a person or persons within reasonable distance of the work or building competent to render first aid in the event of serious accident "

AUSTRALIA (Queensland)

On every important building job a room in connection with the office of the person in charge of the works should be provided and equipped for the purpose of giving first aid and accommodating injured persons pending their removal

The question whether such a room is to be provided should be decided in each case by the inspecting authorities, regard being had to the place in which the work is being carried out, the area of the site and the number of workers employed

It would be desirable to make rules concerning the person or persons qualified to render first aid

Rules might be framed, not as safety measures strictly speaking but as sanitary precautions, in order to ensure that the workers will have proper accommodation for changing their clothing taking meals and resting, W C 's, and supplies of drinking water

HUNGARY

PROPOSED NEW RULES

Amendments submitted by the Employers' members of the Committee of the Twentieth Session of the Conference and withdrawn by them later during the discussion, to which the Committee considered the special attention of Governments should be drawn

Add at the end of Part II a new Part III

New Rule 32

" Every person employed and every person being in or upon the work shall co-operate with the employers in carrying out the foregoing regulations, and every person employed shall report to the employer or foreman any defect he may discover in the plant or appliances or any default by any person tending to defeat the foregoing regulations "

New Rule 33

" No person shall interfere with, take away or destroy any of the plant or safeguards required by the foregoing Regulations without the authority of the employer or his responsible foreman "

Part III would be renumbered as Part IV, with consequential renumbering of the Rules in that Part

These additional provisions are considered as highly desirable

The appointment of licensed scaffolders, also safety committees on buildings, in addition to the inspectors of scaffolding, etc., acting for the Inspecting Authority, would assist materially along these lines

It is considered that any unauthorised or careless interference with any safeguards by any person, whether employer or workman, should be adequately provided for by law

AUSTRALIA (Queensland)

The adoption of a new Rule 33, as proposed in committee by the Employers' members, is considered desirable

NETHERLANDS

Other proposals [1]

Inspectors should be

(*a*) qualified architects, or

(*b*) qualified structural engineers

AUSTRALIA (Federal Capital Territory)

[1] See also the General Observations at the beginning of the reply of the State Government of Queensland (Australia) to the Questionnaire

It appears desirable that the Model Code should include rules specifying duties of persons employed on lines similar to those proposed by the Employers' members of the Committee, but perhaps with some amplification, and also that the duty of complying with Parts I to III of the Code should be placed specifically upon the employer

GREAT BRITAIN.

The rules should be completed by including provisions dealing with demolition work

HUNGARY.

CHAPTER II

SURVEY OF THE REPLIES OF GOVERNMENTS

I. General Replies

Three Governments contented themselves with a general statement in reply to the Questionnaire The Canadian Provincial Governments of Alberta and British Columbia stated that the legislation in force in their Provinces was in substantial accord with the Draft Model Safety Code and consequently did not deem it necessary to reply to the Questionnaire in detail

The Japanese Government's reply approves the principle of safety provisions for scaffolding and hoisting appliances, but does not indicate whether in its view the international regulations should take the form of a Draft Convention and a Recommendation or of a Recommendation only While stating that it was not yet in a position to give a detailed reply to the Questionnaire, the Government adds that it has already required employers to take safety precautions in these matters

II. Form and Character of the Regulations

Questions 1 to 3 (Replies on pp 8 to 16)

The first three questions asked Governments to give their views as to the form and character of the international regulations In the first place Governments were asked whether they considered that the International Labour Conference should adopt international regulations in the form of a Draft Convention concerning safety provisions for workers in the building industry with reference to scaffolding and hoisting machinery If the reply to this question were in the affirmative, Governments were further asked whether they considered that the Draft Convention should contain detailed technical provisions, or whether it should contain only general rules laying down principles, and in that case be supplemented by a Recommendation containing detailed technical provisions which would constitute a Model Safety Code The third question asked Governments whether, if a Draft Convention were not adopted, the Conference should adopt a Recommendation embodying a Model Safety Code

To the first question three Governments only reply in the negative The Government of India, after explaining in detail the special conditions in which building is carried on in that country, declares in favour of the adoption of a Recommendation rather than a Draft Convention, adding, however, that if the Conference should decide to adopt a Draft Convention it would prefer a Convention of the general character indicated in Question 2 (*b*) The Swiss Government considers that the adoption of international regulations in the form of a Draft Convention would hardly be possible, having regard to the differences in methods of building construction in the various countries The Union Government of South Africa replies in the negative, pointing out that the special conditions obtaining in South Africa render it impracticable for the time being to impose uniform rules for workers in the building industry

Apart from these three replies there are twenty-eight replies in favour of the adoption of a Draft Convention The Government of Western Australia adds to its reply a list of the appliances and operations to which in its opinion the Draft Convention might apply, this matter is dealt with in connection with a later point of the Questionnaire

On the question of the character of the Draft Convention to be adopted the Governments are divided in their views Four Australian Governments (the Federal Capital Territory, Queensland, Tasmania and Western Australia) are in favour of a Draft Convention containing detailed technical provisions The same view is taken by the Governments of Austria, Belgium and the Canadian Provinces of Manitoba and Ontario, the last-named Government suggesting that the Model Code should be annexed to the Draft Convention

All the other replies are in favour of the second alternative, namely, a Draft Convention containing general principles supplemented by a Recommendation the detailed technical provisions of which would constitute a Model Safety Code Mention should, however, be made of some suggested variations of this formula

The phrase " general provisions laying down principles " is interpreted rather widely by certain Governments The United States Government speaks of " general provisions as to principles, policies and practices " to be adopted The British Government considers that the Draft Convention should contain " sufficiently detailed provisions to ensure that its objects are achieved ", and should accordingly set forth " certain cardinal rules for safety in building " The Netherlands Government goes further and expresses the view that " the Draft Convention should include, in addition to general principles, provisions concerning such technical details as are capable of being dealt with on a uniform basis in international regulations and which are important from the point of view of the safety of the workers " The Finnish Government suggests that the Model Code should be divided into two parts, the first part would lay down the general rules necessary to ensure

the safety of workers and would form the subject of the Draft Convention, the remainder of the Model Code would constitute the Recommendation

The Estonian Government's view is at the other extreme This Government suggests that the Draft Convention should contain, apart from the standard Articles, only a single provision "requiring the States Members to deal with the question of the safety of workers in the building industry in their national laws or regulations"

The Danish Government suggests that the Draft Convention and the Recommendation should be linked together by including in the Convention a provision to the effect that each of the States Members undertakes to make its national safety regulations correspond, so far as possible and taking into account all the local circumstances and methods of construction, with the Model Code in the Recommendation

All the replies to the third question are in the affirmative

It will be seen that the replies are unanimously in favour of the adoption of international regulations and that the great majority agree that these should take the form of a Draft Convention with a complementary Recommendation

III. Content of the Regulations

Question 4 (Replies on pp 17 to 25)

In this question Governments were asked whether they considered that the international regulations, whatever form might be given to them, should be based on the Draft Model Safety Code prepared by the Correspondence Committee on Accident Prevention, and also whether they proposed any amendments, additions or deletions to be made in this text Further, if they were in favour of the adoption of a Draft Convention containing only general principles and a Recommendation containing detailed technical principles constituting a Model Safety Code, Governments were asked to indicate which of the provisions of the Draft Code should figure in the Convention and which in the Recommendation

It was not the intention of the Office in thus framing the question to suggest that the Model Code should be divided into two distinct parts, in the manner which appears to be contemplated by the Finnish Government If the Conference should decide to make the Model Safety Code the basis of a Recommendation, the Code clearly ought to be complete in itself This would not, of course, exclude the possibility of including certain of the provisions of the Code, in a more summary and general form, in the Draft Convention so as to give the Convention a substantial content

All the replies are in favour of taking the Draft Model Code as a basis The Government of India, however, accepts the Draft only with reservations, for the reasons indicated in its reply to the

first three questions It regards the Draft Code as being useful as a guide but considers that its detailed provisions go far beyond what could be achieved in India in all but the most important works The Swiss Government reaffirms its preference for the procedure consisting in the adoption by the Conference of a Recommendation based on the Model Code The Union Government of South Africa takes a similar view These replies, of course, follow logically from those given to the earlier questions

The Swedish Government, while replying in the affirmative, suggests that the text of the Draft Model Safety Code might usefully be amended in the light of the Governments' replies and that it might be supplemented by drawings

A minority of the Governments have no amendments to suggest to the Draft Model Safety Code, namely, the Governments of Tasmania (Australia), Austria, Saskatchewan (Canada), China, Estonia, Greece, India (subject to the reservations mentioned above), and the Irish Free State The Canadian Provincial Governments of Manitoba and Quebec and the Governments of Latvia, Norway, and the Union of South Africa did not reply to this question They may therefore be regarded as approving the Model Safety Code as submitted

All the other Governments suggest amendments to the Draft Code These will be considered in Chapter III, in connection with the suggestions regarded as suitable for insertion in the Code

The replies to Question 4 (iii) must be analysed with special care in order to avoid any possibility of confusion in regard to the views expressed by Governments It is in fact at this point that the divergencies of opinion become manifest, some being in favour of a Convention only, some in favour of a Convention laying down general principles completed by a detailed Recommendation (with variations as to the scope of the proposed Convention), and some in favour of a Recommendation only

The question of dividing the provisions of the Model Code between a Convention and a Recommendation, or rather of embodying some of the provisions of the Recommendation in the Draft Convention in a condensed form, does not concern those Governments which are in favour of a Convention only namely, the Governments of Australia (Federal Capital Territory, Western Australia, Queensland, Tasmania), Austria, Belgium and Canada (Manitoba, Ontario) The Queensland Government considers that at least the whole of the Model Code should be included in the Draft Convention

Naturally, those Governments which declare themselves in favour of a Recommendation only, without a Draft Convention, also reply to this question in the negative This is the case with the Government of India The Swiss Government, however, while maintaining its general position, also states that there can be no question of dividing the provisions of the Model Code were the Conference

to decide on the adoption of a Draft Convention, but some of the provisions of the Recommendation for instance, those concerning limits of loading, measures to prevent falls of persons or things, or the falling of parts of the scaffolds themselves might be embodied in the Convention The Union Government of South Africa deems it unnecessary to give an explicit reply on this point, in view of its general attitude to the question

The Canadian Provincial Government of Saskatchewan has also failed to reply to this question, although it is in favour of a Draft Convention laying down general principles only The Estonian Government, in conformity with its reply to Question 2, considers that the Draft Convention should contain only a single provision, and should be completed by a Recommendation The Canadian Provincial Government of Quebec recommends, as a model for the Conference to follow, its own " Scaffolding Inspection Act ", without however specifying whether it refers to the Convention or the Recommendation

The Hungarian and Norwegian Governments hold the view that those provisions of the Model Code which are of a general nature should be included in the Draft Convention, while the detailed provisions should be incorporated in the Recommendation The Swedish Government states that " the Draft Convention should contain provisions laying down principles which, in the cases dealt with in the Model Code, would make it obligatory to take safety measures of an appropriate character and at least as effective as those given in the Model Code " The Governments of Bulgaria, Chile, China, Latvia, and Poland do not specify which of the general provisions or general principles of safety they would wish to see included in the Convention, and the Government of the Irish Free State merely indicates that " States Members should be free to frame their regulations in accordance with local practice and circumstances "

The British Government suggests a long list of provisions to be embodied in the Convention Nearly all the proposed Draft Model Rules are expressed as principles to be applied by States Members which ratify the Draft Convention

The Egyptian Government considers that Rules 1, 2, 5, 7, 11-14, 17-20, 21 (paragraph 1), 22, 23, and 32-34 of the Draft Model Code might be included in the Draft Convention

The United States Government considers that the provisions of Part I and Part III of the Model Code might be included in the Convention, together with further items fixing the responsibility of employers in respect of the training and instruction of workers as to hazards and safe work practices It also favours the introduction of provisions requiring the obligatory reporting of all accidents to the competent national authority

The Government of Finland recommends the inclusion in the proposed Convention of the following Rules, subject to certain modifications 1, 2, 5 (excluding paragraph 2), 6, 7, 11, 12, 21 (excluding paragraphs 2 and 3), 23, 33 (excluding paragraph 2) The

other Rules of the Model Safety Code might form the subject of a Recommendation, which would allow more latitude for variations taking account of practice in the different countries

The Greek Government suggests that the Draft Convention should contain Rules 1, 2, 11-14, 21, 22, 32-34 All the others should be included in the supplementary Recommendation, with the exception of Rule 23 (5 and 6), Rule 25 (5), Rule 26 (5), and Rule 30 (15 *a*, *b*, *c*), which should also be included in the Draft Convention

The Netherlands Government favours the inclusion in the Convention of Rules 23 (1, 2, and 7), 24, 25 (1), and 28, giving as its reason that " as it is of great importance that the provisions mentioned above should be applied internationally, it is desirable that they should form part of the Draft Convention " The remaining provisions might be embodied in the Recommendation

To sum up, a considerable majority of Governments are in favour of including provisions laying down principles in the Convention, and a few of them make definite suggestions as to the principles to be included

All the Governments are in favour of making the Draft Model Code the basis of the proposed international regulations, and most of them suggest amendments to the Code

IV Scope of the Regulations

Questions 5 and 6 (Replies on pp 26 to 32)

Question 5 asked States Members to say whether they considered that the proposed international regulations should apply (*a*) to the construction of all types of buildings, and (*b*) to work in connection with the repair, maintenance, demolition, etc , of existing buildings

All but three of the replies are in the affirmative The Government of India states that in view of the conditions existing in India, the regulations could not be fully applied in practice either to (*a*) or (*b*) The Chinese and Latvian Governments hold the view that the determination both of the kind of buildings and of the kind of work in connection with existing buildings should be left to national legislation The Government of Tasmania (Australia) replies in the negative to Question 5 (*b*)

Some of the affirmative replies are accompanied by remarks and reservations The Government of Queensland (Australia) urges that the regulations should apply to the construction of all types of buildings and to all repair, maintenance and demolition of existing buildings The Greek Government states that under a Decree to be issued shortly, the observance of safety regulations in Greece will be obligatory for all contractors, architects or engineers engaging in work of construction, repair, decoration, and painting, and in all kinds of construction work including metal construction, ship building and electrical installation

The Government of Western Australia recommends an exception in favour of buildings erected by the owner himself without employing labour and refers especially to the necessity for including the demolition of old buildings The Government of Saskatchewan (Canada) considers that the regulations should not apply to buildings not more than 20 feet in height, or to farm buildings or to work being done upon a building or excavation by the owner or occupier thereof in person

The Egyptian Government proposes the exclusion of all buildings which have only one storey or do not exceed 6 metres in height

The United States Government, while replying to this question in the affirmative, points out that available statistics and accident insurance rates indicate that scaffolding and ladder hazards are not mainly confined to taller buildings, and that the risk of accident in the repair and demolition of old buildings in many cases exceeds that in new construction

The Danish Government raises the question of applying the provisions adopted to constructional work in general, such as the construction of bridges, chimney stacks, viaducts, etc This point was also raised by the Government of Western Australia in its reply to Question 1, where it suggested a supplementary list including all gear, timbering in wells, and under-pinning and excavations for buildings, scaffolding on ships in dock, on bridges, tanks, etc In spite of the interest attaching to these suggestions it does not appear possible to take them into account, in view of the definite character of the question before the Conference

Question 6 relates to the advisability of granting exceptions in certain circumstances and having regard to the conditions in which the work has to be carried out Governments were also asked to state the cases in which they considered that such exceptions should be allowed, and whether before deciding to make use of this power of exception the competent authority should be required to consult the organisations of employers and workers concerned The replies to these questions must be considered in their order

Four of the Australian State Governments (Federal Capital Territory, New South Wales, Queensland, Western Australia), and the Governments of Austria, Belgium, Chile, Greece, Poland, and Sweden are opposed to the granting of exceptions The Governments of Switzerland and of the Union of South Africa also reply in the negative, but for different reasons, since they advocate the adoption of a Recommendation only All the other Governments accept the principle of exceptions in given circumstances, although the United States Government doubts the necessity for permitting exceptions or exclusions if the proposal under Question 2 (*b*) (a Convention laying down general principles completed by a detailed Recommendation) is adopted

As regards the cases in which exceptions should be permitted, the Governments of Ontario (Canada), Denmark, India, and the Irish

Free State, while accepting the principle of exception, make no specific proposals The Governments of Bulgaria, Manitoba (Canada), China, and Latvia are of the opinion that exceptions should be left to the discretion of the public authority (The Governments of Bulgaria and Latvia use the term "competent authority", that of Manitoba "the Government", and that of China "each country") The Estonian Government virtually takes the same attitude, indicating that it is impossible to find a satisfactory general formula or method of listing particular cases

The Government of Tasmania (Australia) considers that the exceptions allowed should apply to minor repair work and to certain types of buildings consisting of one or two storeys, having due regard to the conditions under which the work is executed

The Government of Great Britain considers that the definition should be left to the competent authority, it would follow from the safety requirements specified in the Convention itself Broadly speaking, however, exceptions might be allowed for the construction of small low buildings and for minor repair and maintenance operations not involving serious risk

The Canadian Provincial Government of Quebec suggests exceptions in the case of farmers The Government of Saskatchewan refers to its reply to Question 5, recommending that the regulations should not apply to buildings not more than 20 feet in height, farm buildings, or any work being done upon a building or excavation by the owner or occupier in person

The Egyptian Government proposes exceptions in the following cases farm buildings, building operations on which less than six persons are employed, any other case in which the competent authority of each country is satisfied that any of the requirements of the regulations could be relaxed without danger to the persons employed

While considering, as already stated, that there is no compelling reason for demanding exemptions or exclusions, should such exemptions nevertheless be found desirable the United States Government would wish them to be confined to buildings not exceeding two storeys

The Government of Finland considers that the authorities should have the right to exclude from the scope of the regulations work on which the enforcement of the safety regulations is not necessary As examples of this kind of work, it mentions one-storey houses and outbuildings in the country, and building work on which only members of the employer's family are employed without any outside labour

The Hungarian Government considers that an exception should be made in the case of one-storey buildings unless the height of the walls exceeds the height of the storey owing to the slope of the ground, of work on the repair and demolition of the walls of such buildings, of building work not coming within the classes specified

above but subject to special regulations (tunnels, dams, bridges, factory chimneys, etc), and of military works and urgent repair work in cases of *force majeure*

The Norwegian Government proposes exemption for small buildings and repair work which is considered to involve no special risk for the workers

The Netherlands Government considers that, generally speaking, from the technical point of view of safety, there is no reason for excluding any special class of building work, but a limitation of the scope of the Convention may be necessary having regard to the means available to ensure the enforcement of the requirements prescribed It therefore suggests an exception in respect of building work on which less than five persons are ordinarily employed and where no motive power is utilised

The replies to this question should be considered in conjunction with those to Question 5, since some of the exemptions or exclusions suggested in reply to Question 6 have already been proposed by certain Governments in their replies to the previous Question

With the exception of three Governments those of Quebec (Canada), Finland, and the Netherlands which oppose the suggestion, and three others China, Egypt, India which do not reply to this point, all the Governments which agree to the principle of providing for exceptions also consider that the competent authority should be required to consult the organisations of employers and workers concerned beforehand

Of the Governments which reply in the negative, the Government of Quebec considers that the matter should be left to the discretion of the responsible authority The Government of Finland fears that, for technical reasons, such consultation might lead to difficulty, while the Netherlands Government considers that it is not necessary

A reservation is made by the Danish Government, which recommends that consultation of the organisations concerned should be required only in respect of the general power of exemption, since it would be an unnecessary complication if a similar obligation were imposed in respect of purely individual exceptions " Great Britain is in favour of consultation " where the power is exercisable by administrative order ", while Norway deems it unnecessary in the case of small buildings in rural areas

The general inference to be drawn from these replies is that Governments are in favour of exemption in the case of buildings of not more than one storey in rural areas They also appear to be in favour of a similar exemption in respect of repair, maintenance and demolition work on existing buildings when no special risk is involved for the workers employed And lastly, the majority of the Governments are also in favour of the previous consultation of the workers' and employers' organisations

V. Measures for Enforcement and Supervision

Questions 7-9 (Replies on pp 33 to 45)

The provisions to which these questions relate aim at facilitating the enforcement of the proposed measures by informing the persons concerned of the danger involved, and by special supervision over both the workers employed and other persons not employed on the job They also suggest that certain special information should be included in the annual reports of Governments on the application of the Convention when ratified

Subject to a few variations, the replies are unanimously in favour of including in the regulations provisions requiring employers to bring the regulations to the notice of the persons concerned by the posting-up of notices on the building site or by any other means, to issue special instructions to workers employed on particularly dangerous jobs, and to arrange for special supervision of such jobs

The Government of New South Wales (Australia) considers that supervision should be entrusted to foremen with special knowledge of the requirements of the regulations The Egyptian Government suggests that only a relevant extract of the regulations should be posted up on the building site in a conspicuous place where it may be conveniently read the extract to be in legible characters The Estonian Government considers that it would not be possible to post up the international regulations if they were identical with the Model Code, and therefore regards it as preferable to require the issuing of special instructions The United States Government recommends that special instruction should be given to workers employed on dangerous jobs in accordance with the suggestions made by it in reply to Question 4 (iii). The Hungarian Government considers that it would be useful, for example, to stipulate that before the erection of scaffolding for special purposes, or of a kind different from the usual standard type, plans and detailed calculations should be submitted to and approved by the competent authority The Indian Government observes that owing to the illiteracy of the majority of the workers in India, the notices and instructions would not always be observed The Government of the Irish Free State would prefer the provisions requiring the issue of special instructions and arrangements for special supervision to be included in a Recommendation, while the Netherlands Government considers the question of posting up the regulations to be of relatively little importance, and would require special supervision only for jobs exceeding a certain size

The British Government's reply deserves special notice It points out the vagueness of the term "particularly dangerous jobs", and the fact that if special instructions had to be issued in such cases, this might lead to carelessness and failure to take desirable precautions on other jobs It would therefore seem better to require employers to appoint a person or persons compet-

ent for the purpose and experienced in the class of work concerned to supervise the operations

Several Governments make new proposals on this point

The Government of Queensland (Australia) advocates a statutory system of inspection and the formation of workmen's safety committees on each building These suggestions will be considered later in connection with the replies to other questions

The Government of Western Australia considers that on large and dangerous jobs a steward should be appointed by the employer to see that the safety provisions are observed The New South Wales Government suggests that the workers should periodically be given talks or lectures on safety provisions, this point, too, will be dealt with later The Austrian Government proposes that employers should be required to appoint a specially trained person familiar with the work for the purpose of supervision on the building site

The British Government refers to the appendices to its reply to the Questionnaire, dealing respectively with suggested amendments to the Model Safety Code and with the principles which should be incorporated in condensed form in the Draft Convention The concluding paragraphs of these two appendices, which are entitled Responsibility for Compliance ", lay down that responsibility for the enforcement of provisions should be imposed on the employer, who should be assisted by all the persons in his employ The United States Government expresses the same idea, inasmuch as safety depends largely upon constant supervision by competent persons, it lays special stress on this requirement The Norwegian Government recommends in more general terms that special supervision should be organised to the extent required by the importance of the job and local working conditions A similar point is made by the Queensland Government, which suggests in its general remarks the issue of licences to scaffolders, this will be considered later in connection with Question 10

The Canadian Provincial Government of Manitoba suggests the requirement of a medical examination of workmen on especially dangerous jobs This is also proposed by the Governments of Western Australia and Austria in connection with other points of the Questionnaire The Chilean Government suggests that employers should be forbidden to employ on such work any worker who does not possess the physical and psychological qualifications necessary

The Egyptian Government suggests that a printed copy of the regulations should be given by the employer to any worker who asks for it

The Hungarian Government considers that provision should be made for the infliction of penalties, and the requirement added that dangerous jobs should be entrusted only to persons fitted for the particular kind of work

Question 8 asked Governments whether they deemed it desirable that certain obligations should be imposed on any other persons

engaged in any capacity in or about the works, and if so, what obligations they would suggest

Negative replies are given by eight Governments (Belgium, Quebec (Canada), Chile, Estonia, India, Sweden, Union of South Africa, United States) Of the two which give reasons for their reply, the Indian Government states that in most cases it would be impracticable to impose such obligations on persons who were not actually employed on the job, while the Government of Quebec (Canada) considers that the employer is under sufficient obligations in respect of his own employees without having to undertake additional obligations in respect of persons who may have to enter the site for different purposes, but not to work there

By far the larger number of Governments reply in the affirmative, with or without reservations The Norwegian Government considers in general that the Draft Convention should lay down the duty of the employer to provide for the welfare of his workers, and that an obligation should be imposed on both employers and workers to do everything in their power to avoid injury to life and limb This suggestion refers more properly to Question 7, which has already been examined

The Australian Government of the Federal Capital Territory, although approving of the principle, makes no definite suggestions Two other Governments which also reply favourably, those of Latvia and Tasmania (Australia), content themselves with saying that the obligations to be imposed should be left to the discretion of the competent national authority All the other Governments make definite suggestions

The Canadian Provincial Government of Saskatchewan considers that the obligation to observe safety provisions should also be placed on engineers and architects in the drafting of plans and carrying out of works, this reply is not directly relevant to the question asked, but is of interest in connection with the general measures to be adopted for enforcement and supervision A similar suggestion is made by the Chinese Government, which considers that " those persons or their legal substitutes responsible for the building enterprise should bear the responsibility for the prevention of accidents " and adds that an obligation to conform to the safety regulations should be imposed upon the workers

The Australian State Government of Queensland considers that obligations should be imposed on the inspection authorities and that responsibility should lie with the employer and also with any worker who is guilty of negligence The Government of Western Australia would make it obligatory for the person in charge of the work to report all defects to the owner or contractor Similarly, the New South Wales Government considers that it should be the duty and responsibility of the general foreman or supervisor in charge of the work or a section of the work to see that the requirements of the regulations are observed This view is also held by the Canadian Provincial Government of Manitoba,

which demands that special supervision to prevent accidents should be required on all large and dangerous jobs

The Austrian Government suggests that persons engaged in or about the work in any other capacity than that of workers should be required to take note of the extracts from the regulations posted on the building site, and to comply with any safety regulations applying to them The Bulgarian Government proposes that, apart from the owner, no person not employed in direct connection with the work should be allowed free access to and movement about the site The British Government considers that in view of the difficulty of dealing in the Convention with the legal obligations of third parties visiting the sites, the Convention should not go further than to provide that such persons should be prohibited from interfering with any of the plant or safeguards required by the regulations, without the authority of the employer or his responsible representative The Canadian Provincial Government of Ontario suggests that persons visiting the site should be warned of the dangers and required to observe certain precautions

The Danish Government, after defining the obligations which should be imposed on workers employed in connection with scaffolding and hoisting machinery, states that all other persons whose business may take them on or near the site of the works should be required to exercise the greatest prudence In order to secure the effective fulfilment of these obligations by the workers and other persons concerned, the competent authority should have power to require employers to post up, in positions considered suitable by the authority, conspicuous and easily legible warning notices and extracts from the safety regulations This part of the reply refers to Question 7

The Egyptian Government proposes that no person should interfere with or take away or destroy any of the plant or safeguards required by the regulations without the authority of the employer or his responsible agent, that only the gangways, ladders or staircases or other safe means provided for getting into and about the building should be used, and that any defect noticed in the plant or appliances should be reported to the employer

The Finnish Government suggests that in the case of important works a special permit should be required for entering the site The Irish Free State Government considers that such obligations should be imposed as will secure the highest standard of compliance The Netherlands Government considers that the same obligations as apply in the case of workers should also be imposed on all other persons who may be engaged in or about the works The Polish Government states that the regulations should contain provisions concerning the strict delimitation of the site of the works, and that access to the site by persons not connected with the work should be strictly forbidden by conspicuous notices The same opinion is expressed by the Swiss Government, which considers that it would be desirable to forbid access to the works by third parties

The Greek Government considers that persons who have business

in or about the works should comply with all the general safety regulations, should take proper safety precautions, and should endeavour not to cause any accident to other persons The contractor should be held responsible for any accidents which may occur and should keep a watch over the actions of such persons

The Hungarian Government points out that the rules to be applied would depend upon the capacity in which the persons in question were engaged In certain cases it might be desirable to give the authorities the right to make such rules, which should not be limited to recommendations or explanations, but should include strict prohibitions or precise instructions Apart from the workers and employers, every person on or near a building site should be required to refrain from any act likely to damage or endanger the stability of temporary scaffolding and to take the precautions required by considerations of safety Every person in or about the work should be under an obligation to conform to the orders of the person in charge of the work, and it would also be desirable to define the rights of the person in charge of the work with respect to those who happen to be on the site

The Norwegian Government suggests that an obligation should be imposed on manufacturers of and dealers in machinery to deliver only machinery fitted with the prescribed safety devices As will be seen below, a similar suggestion is made by the Swiss Government in reply to Question 13 (iii)

Question 9 was framed as follows " Do you consider that if a Draft Convention is adopted it should specify certain points on which full information should be given in the annual reports on the application of the Convention to be furnished by Members, in particular as regards the cases in which the power of exception indicated in question 6 (i) is exercised and the reasons for such exceptions ? "

Either in order to avoid overloading the Draft Convention, or because they favour the adoption of a Recommendation without a Draft Convention, all the seven Governments which replied to the previous question in the negative, with the exception of the Chilean Government, declare themselves opposed to the specification of special points on which full information should be given in the annual reports on the application of the Convention when ratified The Governments of Bulgaria, Hungary, and Sweden also reply to this question in the negative

Two Governments, those of the Federal Capital Territory of Australia and of the Canadian Province of Saskatchewan, give no reply to this question All the others have replied favourably, some of them adding their observations The Danish Government considers that the annual report should bear only on the general exceptions and should not deal with purely individual cases It also suggests that it would be highly desirable to require Members to communicate to the International Labour Organisation data concerning the number and nature of the accidents occurring in

the course of the year, which would furnish a basis for international statistics of accidents A similar suggestion is made by the Polish Government, which while maintaining its opposition to the principle of exceptions, considers that in order to facilitate international comparisons it would be desirable that the reports should contain statistics of accidents which have occurred, based on data concerning " accidents notified ", classified according to their principal causes The Greek Government proposes that the annual reports should also contain statistics of the " number of decisions by the courts in connection with the application of the Convention, and information on the activities of the inspection service "

The British Government interprets the question put rather widely, stating that although ratifying States would be obliged by Article 22 of the Constitution to furnish annual information in the prescribed form of report as to the application of the Convention, it might be useful to include a provision under which ratifying States would undertake to furnish certain supplementary information, in particular as to the precise measures taken on the lines of the Model Safety Code and as to systems of inspection in operation

Owing to the great diversity of the replies to Questions 7-9, on account of which these questions were dealt with separately in Chapter I of this Report, it is impossible to summarise them satisfactorily Nevertheless it is clear that the majority of Governments support the principle of laying special obligations on the employer in regard to the posting of notices and issuing of orders and to the supervision of the work

Most Governments further consider that certain obligations should be imposed on all persons who have occasion to enter the site of the works, even if not directly employed on them And lastly, the majority of Governments are also in favour of requiring information on certain special points in the annual reports on the application of the Convention when ratified

VI. Inspection

Question 10 (Replies on pp 45 to 52)

In this question Governments were asked whether they were in favour of the adoption of a Recommendation concerning the organisation of labour inspection in the building industry, and if so what provisions they suggested should be included as to the nature of the inspection authority, the scope of inspection, the powers of inspectors, and any other matters

Six Governments are opposed to the adoption of a Recommendation The Danish Government questions the necessity of a special Recommendation concerning the organisation of inspection, since

it would seem to be sufficient for the Convention to require the States Members to ensure the enforcement of the regulations by official inspection authorities in virtue of the national legislation on the subject The Indian Government states that such special inspection would be impracticable in India save on very important works The Governments of the Irish Free State and the Netherlands consider that the Recommendation adopted at the Fifth Session of the Conference (1923) is sufficient to meet the case The Swedish Government also refers to the 1923 Recommendation and to the 1929 Recommendation concerning accident prevention, adding that the general question of inspection will probably be on the agenda of the 1939 Session of the Conference It considers that inspection in the building industry should be carried out conjointly with general labour inspection The Union Government of South Africa states that the conditions obtaining in that country preclude the introduction in the near future of any uniform method of inspection in the building industry The remaining 25 Governments support the idea of a special Recommendation

The Government of the Federal Capital Territory of Australia, although in favour of the principle of a Recommendation, makes no definite suggestions The Norwegian Government advises leaving the organisation of inspection entirely to the different countries The replies of five other Governments contain general observations The Finnish Government considers that inspection in the building industry might operate more or less on the same principles as for other kinds of employment The Canadian Provincial Government of Saskatchewan is of the opinion that local public bodies should provide the inspection authority, and determine the scope of inspection, the powers of inspectors and other matters Owing to the difficulty likely to be encountered by the smaller industrial countries in organising a special inspection service for the building industry, the Estonian Government would prefer the adoption of a Recommendation to the effect that the inspection of building work should be entrusted to the general labour inspection service, for further details, reference should be made to the 1923 Recommendation

The Chilean Government develops this view, stating that it would be sufficient to require that there should be certain officials among the factory inspectors specially charged with the supervision of safety standards and having wide powers It would also be possible to authorise public, semi-official, or private inspectors responsible for insurance against industrial accidents to intervene in matters relating to building construction in order to take part directly or indirectly in such supervision The Greek Government states that " in Greece the labour inspection service includes three inspectors of scaffolding with experience in the trade who are specially entrusted with ensuring the observance of the safety regulations concerning work of this kind "

The replies of the other Governments will be considered in the order indicated under Question 10

Nature of the Inspection Authority (Public Body or Private or Semi-Official Trade or Technical Bodies)

The Polish Government considers that, having regard to the fact that inspection in the building industry is in different countries entrusted to organisations of different characters, the Recommendation should confine itself to naming by way of example the forms of organisation which are most widely adopted All the other Governments support the formula of " public body ", with occasional variations in terminology, the descriptions used including the Government, State authorities, State bodies, State services, communal or municipal authorities, and specialised technical bodies exercising public authority

The Government of Queensland (Australia) cites by way of example its own Act concerning the inspection of scaffolding and gear used in connection with building operations, which provides for the selection of expert inspectors, the issue of scaffolders' licences, etc The United States Government considers it of paramount importance that the public body should have the fullest authority to require compliance with existing laws and regulations The Swiss Government states that inspection should be exercised by specialists and that recourse might be had to private trade organisations for the purposes of such inspection This suggestion is made by several other Governments, the United States Government also proposing the co-operation of insurance carriers, although specifying that the collaboration of these agencies should not be substituted for the obligation of the State to exercise direct inspection supervision It may be noted that the Danish Government, although opposed to the idea of a special Recommendation, considers that inspection should in all cases be entrusted to official inspection authorities

Scope of Inspection

The Chinese Government considers that the scope of inspection should be determined by each country, and the Latvian Government, by national legislation The Egyptian Government is in favour of defining the scope of inspection on similar lines to those laid down in the Recommendation adopted in 1923, while the British and Polish Governments suggest that inspection should cover the whole field of the safety measures adopted in the international regulations

Generally speaking, few detailed proposals have been put forward on this point The Government of Queensland (Australia) considers that inspection should cover all classes of new buildings, irrespective of their size, and all repairs, renovations and demolitions, including foundations and roofs The Government of Western Australia mentions scaffolding and gear and safe working

generally The Belgian Government proposes the definition " all works of construction, demolition, excavation and levelling ", and the Hungarian Government " building work "

Powers of Inspectors

The Chinese Government states that the powers of inspectors should be fixed by each country, and the Bulgarian and Latvian Governments, by national legislation The British Government considers that the inspection authorities should have the powers indicated in Part II of the Labour Inspection Recommendation of 1923, and the Egyptian Government is of the same opinion The Government of Tasmania (Australia) states that the inspectors should have the usual powers and the right of entry to the works The Government of Western Australia states that the inspector should have the power to enforce full compliance with the provisions of the safety code

The Government of Queensland (Australia) goes into the question in some detail In its opinion, inspectors should have proved their technical and practical knowledge by passing a qualifying competitive examination before appointment, they should have authority to check designs and determine safe loads and stresses in connection with any scaffolding or hand-operated gear used in connection with building operations, and also to issue instructions to the employer or his foreman or the licensed scaffolder for the alteration, repair or renewal of any scaffold or gear not strictly in accordance with the statutory requirements, or for any reason unsafe The inspector might allow a specified period of time for compliance with his instructions, but in the case of immediate danger he should be entitled to require his instructions to be carried out forthwith and to prohibit the use of scaffolding or gear until these instructions have been carried out to his satisfaction

Some of these suggestions also figure in the reply of the Government of New South Wales (Australia), in particular those relating to the issue of written instructions and the suspension of work in case of danger The Austrian Government considers that the inspection authorities should have power to enter upon and inspect building sites and workshops at any time, to question the persons employed, to require information and documents to be furnished, to carry out investigations, and to issue instructions The Belgian Government suggests as special measures prosecution, and suspension of the work in case of danger The Canadian Provincial Government of Ontario recommends that the powers of inspectors should be similar to those of factory inspectors They should have the right of entry, and power to issue orders and, if necessary, to suspend the work pending compliance

The Hungarian Government considers that, in order to make the inspection effective, provision should be made for the infliction of penalties, and the inspectors should be entitled to impose fines and

to give any necessary instructions on the spot, since " the ordinary administrative procedure, which is lengthy, would generally prove ineffective, having regard to the fact that as a rule building work is of short duration "

The Polish Government also specifies in detail the powers to be given to safety inspectors in the building industry They should be required to supervise the enforcement of the rules concerning the technique of building construction and safety on all work of construction, reconstruction, maintenance, repair and demolition of buildings of all kinds Their powers should correspond with the nature and competence of the authorities and organisations responsible for inspection The inspector should have the right to issue prohibitions in accordance with the provisions included in the contracts, and to suspend work pending a decision by the competent supervising authority

The Swiss Government would like to see the powers of the inspectors limited to reporting their findings to the competent authority, it being for that authority to order any measures to be taken which it deems necessary Inspectors should, however, be authorised to discuss with the heads of undertakings any measures they consider necessary to remedy defects observed, and they should make proposals to the competent authority In the case of imminent danger they should have power to forbid provisionally the continuation of the work

Other Suggestions

Few replies were received to this question The Government of Queensland (Australia) suggests the establishment of a " Voluntary Committee of Safety " on each works to collaborate with the inspection authority, while the New South Wales Government urges that provision be made for penalties for failure to give effect to the requirements of the regulations or to the orders and instructions of inspectors

The Austrian Government also suggests co-operation between the inspectors and representatives of the staff The Chilean Government states that " it would also be possible to authorise public, semi-official or private inspectors responsible for insurance against industrial accidents to intervene in matters directly relating to building construction so that they may take part directly or indirectly in such supervision " The Polish Government recommends collaboration between the authorities responsible for inspection to secure co-ordination of their activities and achieve the desired ends

Nearly all Governments show keen interest in the question of inspection in the building industry with a view to the adoption of a Recommendation The suggestions put forward will enable a text to be drafted which will complete, in respect of the building industry, the 1923 Recommendation concerning labour inspection

VII. Co-operation in Accident Prevention

Questions 11 and 12 (Replies on pp 52 to 58)

Question 11 asked Governments whether they considered that the International Labour Conference should adopt a Recommendation concerning co-operation between employers, workers and others concerned in the prevention of accidents in the building industry Question 12 went on to ask whether, if so, they considered that the Recommendation should contain provisions respecting

(i) The establishment of safety organisations by associations of employers or workers, or by both together, or in any other way, for the promotion of safety in the building industry,

(ii) The promotion of safety by such organisations by means of safety instruction, handbooks, pamphlets, posters, notices, etc , meetings, lectures, films, magazines, courses of instruction or training, etc ; the compilation and analysis of detailed accident statistics, or any other measures,

(iii) The establishment of some form of safety organisation in building undertakings (safety manager, safety engineer, safety committee, workmen's inspectors, etc)

Three Governments replied in the negative as regards the question of principle The Government of India states that the recommendations suggested could not be executed, while the Netherlands Government considers that a Recommendation dealing with this subject is not necessary, since the matter is already dealt with in the existing Recommendation concerning the prevention of industrial accidents (No 31)

The Swiss Government observes that " the collaboration between employers, workers, and inspecting authorities very probably differs from one country to another according to the legislation in force concerning accident prevention, so that it would hardly be possible to arrive at any result by a Recommendation " If, however, the Conference should decide otherwise, this Government is of the opinion that any Recommendation adopted should not go into details such as are suggested in Questions 11 and 12

The Greek Government merely states that the limited technical and financial resources available in Greece would not permit of taking all the measures mentioned in Questions 11 and 12, but that it might be able to bring together the trade associations for the purpose of safety propaganda designed to give instruction to workers in the prevention of accidents

All the other Governments, twenty-seven in all, approve the proposal relating to the establishment of safety organisations, although the Norwegian Government points out that the Recommendation concerning accident prevention adopted by the 1929

Session of the Conference would appear to cover the building industry

Some of the replies also contain various comments The Belgian Government and the Canadian Provincial Government of Saskatchewan consider that provision should be made for the establishment of employers' and workers' safety associations, while the Government of Ontario (Canada) suggests a joint safety council

The United States Government approves the suggestions put forward in the Questionnaire in general, but refers to its replies to Questions 4 and 7 to the effect that employers should be required to provide special safety instruction and safety supervision Moreover the Draft Model Code should include provisions for the establishment of safety organisations by employers' and workers' associations or by both, and the promotion of safety by such organisations through handbooks, posters, notices, meetings, lectures, films, training courses and any other suitable measures, including the compilation and analysis of detailed accident statistics The Government refers further to its previous suggestion that the reporting of accidents to a competent public authority should be made obligatory and that the authority concerned should be responsible for compiling, analysing and appraising the reported accidents

The safety promotion measures specified in the Questionnaire are also approved by the Governments The Government of Western Australia suggests the further precaution of prohibiting the employment of any person with defective hearing or eyesight in any but safe duties This proposal, which is unquestionably important, is considered by the Austrian Government in connection with Question 13 (technical education and other measures) It has already been seen that a similar proposal was made by the Canadian Provincial Government of Manitoba and the Chilean Government

The same applies to the proposal of the Hungarian Government, which is of the opinion that, in addition to safety propaganda, consideration should be given to the desirability of submitting apprentices to the building industry to special aptitude tests In some cases builders' labourers might likewise be subjected to tests in special laboratories

The suggestion that provision should be made for the establishment of safety organisations in building undertakings is opposed by the Governments of the Irish Free State and Hungary, the latter considering that compliance with safety regulations is a matter for the person in charge of the work

Various reservations are also made by different Governments The Bulgarian Government stipulates that any such organisation should be under the direct control of the competent authorities, while the Governments of Western Australia and Estonia consider that it would be possible only in the larger undertakings

The Australian State Government of Queensland refers to its

suggestion concerning the establishment of a voluntary safety committee in its reply to Question 10, which also suggests periodical conferences between the chief inspectors of scaffolding, representatives from the Government Works Department, architects, employers, contractors, and building trade employees' representatives Such conferences would make for progress in the matter of safe working conditions and the technical standards of the inspecting authority Replying to Question 12 (iii) this Government adds that " the co-operation of all persons on the building in keeping all floors, scaffolds, gangways, etc , free from loose building material and debris would assist materially towards safe working conditions " It will be recalled that similar proposals were also made in connection with Question 8

The Austrian Government emphasises the importance of associating representatives of the workers with the enforcement of safety provisions, and the Polish Government points out the necessity for joint action by all the employers concerned

The Governments' replies to this question indicate that there is scarcely sufficient justification for adopting a special Recommendation to deal with accident prevention in the building industry Nearly all the Governments express approval of the principle, but such a Recommendation would do no more than reaffirm the provisions already laid down in the 1929 Recommendation concerning accident prevention in general Some of the suggestions made may however be incorporated in the Recommendation concerning safety inspection discussed above

VIII. Technical Education and Other Measures

Question 13 (Replies on pp 58 to 62)

The thirteenth and last question put to Governments was whether they were in favour of the adoption by the Conference of a Recommendation as to

(i) The desirability of including instruction in safety and supervision, especially the training of foremen, in the syllabuses of technical or trade schools,

(ii) The desirability of including in the terms of building contracts given out by the State or other public authorities a clause calling attention to the safety regulations in force and indicating any other measures that might be required in order to avoid accidents; and

(iii) Any other measures for promoting safety in the building industry, and if so, what measures

All the Governments approve the principle of a Recommendation on this subject As regards the desirability of providing for

instruction in safety in technical or trade schools, the Netherlands Government is of the opinion that this matter should form the subject of a special investigation not confined to the building industry The Indian Government states that such instruction could be given only where such schools exist The Australian State Government of Queensland points out the desirability of including in the technical training of apprentices to the building trade instruction on the strength of materials used in the construction of scaffolding and all gear, and on the principles of scaffolding construction and maintenance The other Governments make no comments on this point

The proposal relating to the insertion of clauses concerning safety in the terms of building contracts given out by the State is opposed by the Governments of Western Australia and Hungary without any reasons being given The British Government disagrees with this suggestion on the following grounds " The suggestion that the contract should indicate further safety measures appears open to the serious objection that it would tend to weaken the employer's sense of responsibility It is important that the employer should be encouraged to take *all possible* steps to secure the safety of his employees, and suggestions from the public authority might lead him to think that, if he carried out these suggestions, no more need be done, whereas possibilities of danger may arise from time to time as the work goes on, which the public authority could not foresee when the contract was given out "

The Finnish Government states that so far as Finland is concerned there is no need to make special provision for State contracts, since contracts between the State and private persons are subject to the same legislation as contracts between two private persons It might be recommended, however, that every employer working on any substantial scale should be required to give consideration in his contracts to the question of safe working

The other Governments are in favour of a provision to this effect The Queensland Government specifies that " all day-labour or contract works, whether undertaken by or on behalf of the State Public Works Department, local authorities or private firms or individuals, should make provision for a strict observance of the safety provisions for workers in the building industry, and all undertakings and contracts should contain a specific clause making compliance with such safety provisions compulsory "

Not many suggestions are made as to other measures for the promotion of safety in the building industry, but some of the points raised are highly important

The Canadian Provincial Government of Manitoba merely states that conditions would determine any other measures The Government of the Federal Capital Territory of Australia submits a list of suggestions relating both to the Model Safety Code and to the proposed Recommendation concerning inspection The Western Australian Government considers that on all large works at least one employee should hold a first-aid certificate and the necessary

outfit should be kept permanently on the site The Queensland Government recommends that consideration be given to its own Inspection of Machinery Acts in order to deal adequately with mechanical hoisting equipment used in connection with the building industry

Several other suggestions also relate to questions which have already been dealt with The Hungarian Government proposes the standardisation of materials and appliances The Swiss Government considers that it would be well to recommend to building contractors that they should purchase or hire only machines which comply in all respects with the safety requirements, and that they should not use machines until they have received from the inspecting authorities confirmation that they are in order from the point of view of accident prevention

The Austrian Government makes a suggestion which links up with similar proposals put forward by the Governments of Western Australia, Manitoba (Canada), Chile and Hungary, and already referred to, namely that a medical examination should be established for the purpose of determining physical aptitude for specially dangerous work, freedom from liability to vertigo, etc

The great importance of technical education in regard to safety in the building industry is recognised by all Governments As the Conference has not yet adopted any international regulations concerning technical education in general, a Recommendation relating to the building industry appears to be called for

The same applies in respect of the clauses concerning safety regulations to be inserted in the building contracts given out by the State On this point certain reservations are made which will have to be taken into consideration.

As regards the other suggestions put forward, no special recommendations appear to be required In some cases they apply to matters already considered elsewhere and may therefore be incorporated in the Recommendation containing the Model Safety Code or the Recommendation concerning inspection In others they appear to call for further investigation, but may nevertheless serve to indicate the lines along which accident prevention measures in the building industry can subsequently be perfected

CHAPTER III

CONCLUSIONS AND COMMENTARY UPON A PROPOSED DRAFT CONVENTION AND FOUR DRAFT RECOMMENDATIONS

The views expressed by Governments in their replies to the Questionnaire have been briefly summarised in the previous chapter It now remains to indicate the conclusions which the Office has drawn from the consultation of Governments and to comment upon the texts which the Office submits for the consideration of the Conference These texts number altogether five The principal proposals submitted are embodied in a proposed Draft Convention relating to safety provisions in the building industry and a proposed Recommendation embodying a Model Safety Code These are closely linked together The three other texts are Draft Recommendations concerning respectively inspection, vocational education and the conditions to be inserted in Government building contracts

The proposed texts are given in full at the end of the chapter and certain explanations and comments are given below in order to facilitate the work of the Conference in examining them

Proposed Draft Convention relating to Safety Provisions in the Building Industry

The great majority of the Governments express themselves in their replies to the Questionnaire as in favour of a Draft Convention laying down general principles, details of application being included in a supplementary Recommendation The Office has accordingly framed the text of the proposed Draft Convention on this basis Clearly, however, a Draft Convention would have little value if the principles enunciated in it were mere generalities not involving any substantial obligation and not representing any real attempt at standardising at least the minimum precautions required to ensure safety in the building industry On the other hand, the Conference would fail to achieve the object it has in view if it were to adopt a Draft Convention which, because it went into too much detail, would not be likely to be ratified by a substantial number of

countries in the near future. The Office has endeavoured therefore to steer a course between these two extremes

The Obligations imposed on States (Article 1)

The first obligation which would be undertaken by States ratifying the proposed Draft Convention is set out in Article 1 (*a*) of the text submitted by the Office It is that Members will maintain in force laws or regulations which ensure the application of certain General Rules These rules appear in Parts II, III and IV of the text They constitute as it were the essential framework of the Draft Model Code drawn up in collaboration with the Correspondence Committee on Accident Prevention and approved except for suggested modifications on matters of detail by virtually all the Governments In the selection of the particular provisions of the Code to be included in the Convention itself advantage has been taken of the detailed suggestions made by a certain number of Governments The character of these parts of the proposed Draft Convention is such as not to call for any detailed commentary, but it may be said that the general intention has been to lay down a series of principles which together constitute a satisfactory basis for safety provisions in the building industry and which could be put into application without serious difficulty in most countries Detailed specifications of dimensions, etc , have been avoided lest some slight divergence in itself unimportant between the provisions of this Part of the Draft Convention and the standard practice of a particular country should constitute an obstacle to ratification

The general principles laid down in these Parts of the proposed Draft Convention do not, however, constitute more than a basis for national action If the national laws and regulations are to be really effective measures for the prevention of accidents in the building industry, they must deal with a considerable number of questions of detail It is necessary therefore that the Convention should require States to make provision for such detailed regulation At the same time, for the reasons already indicated, it is neither necessary nor desirable that the Convention should specify too precisely the form that such detailed regulations should take Obviously latitude must be left to the various Governments to adopt their detailed regulations to the practical conditions of the industry in their countries The second obligation imposed on States, which is set out in Article 1 (*b*) of the proposed Draft Convention, is therefore that their national laws and regulations shall make provision for the making of detailed regulations by an appropriate authority The regulations to be made should clearly conform as far as possible to the stipulations of the Model Code approved by the Conference in order that there may be substantial uniformity in this matter in all the countries ratifying the Convention But it may well happen that in respect of this or that detail of the Model Code strict conformity between the national regulations

and the Model Code is rendered impracticable by the particular conditions in which the building industry has to operate or it may be that immediate application of a particular provision might present difficulties To meet these difficulties and avoid excessive rigidity, the proposed text provides for effect being given to the provisions of the Model Code by national regulations only so far as may be possible and desirable under national conditions Governments are thus given an authoritative guide, but it is left to them to decide whether and to what extent the lines indicated by the guide may here and there be departed from

This provision of the proposed Draft Convention definitely links up the Convention with the accompanying Recommendation since the Model Code figures in the Recommendation It must, however, be remembered that building practice is not static and that there may be developments in the technique of the industry which would render desirable some alteration of, or more probably some addition to, the provisions of the Model Code If and when such changes in the Model Code are made, it would obviously be desirable that they should be reflected in the national regulations dealing with safety in the building industry The revision of the Convention to take account of changes in the Model Code would be a cumbrous and lengthy procedure and it is therefore provided in Article 1 (*b*) of the proposed text that national laws or regulations shall empower the authority responsible for the detailed application of safety measures to amend these detailed regulations from time to time so as to take account of changes which may be made by the Conference in the Model Code This procedure is in accord with the practice of most countries the laws of which leave details of measures of execution to be settled by an appropriate authority It does not impose any undue obligation on States ratifying the Convention, since they are left with full liberty to decide whether and to what extent detailed provisions in any revised Model Code should be applied in their own countries

Since a considerable latitude is necessarily left to the individual States as regards the detailed application of the Model Code, it is clearly desirable that machinery should be provided by which it will be possible to ascertain periodically the extent to which the provisions of the Model Code have in fact been applied and the purpose of the Draft Convention has thereby been achieved The ordinary annual reports on the application of Conventions furnished by the States Members of the Organisation in accordance with Article 22 of the Constitution might of course be used to obtain this information, but it has seemed undesirable to require Governments to furnish a considerable volume of detailed information every year Article 1 (2) of the proposed text therefore makes provision for a special report, distinct from the ordinary annual report and to be furnished only once in every three years This provision not only lightens the burden on Governments but would also facilitate the examination of the triennial reports if the Governing Body of the International Labour Office should so

decide by a body of experts who are specialists in matters of accident prevention in the building industry A comparison of the triennial reports would reveal the extent to which the Model Code was being applied internationally and would also no doubt suggest the desirability or necessity of modifications of the Model Code from time to time The obligation to furnish a report every three years does not dispense a State which ratifies the Convention from the obligation to make an annual report, since that is imposed by the Constitution of the Organisation, but it may be assumed that the Governing Body when deciding the form of the annual report will take account of the fact that detailed reports are to be furnished every three years and will reduce the information to be given in the annual report to the strict minimum

Scope of the Safety Regulations (Article 2)

Article 2 of the proposed text defines the forms of building activity to which the General Rules which States are required under Article 1 to enforce shall apply Paragraph 1 provides that they shall apply to construction, repair, alteration, maintenance and demolition work on all types of buildings, but certain exemptions are permitted in paragraphs 2 and 3 The first exemption is in respect of buildings of not more than one storey on rural sites In view of the conditions in which such building is carried out it seems reasonable that as suggested in the replies of a number of Governments there should not be an absolute obligation to ensure in all such cases the application of all the General Rules Whether such building work should be exempted at all and, if so, whether the exemption should be in respect of the General Rules or only in respect of certain of them upon which it would not be necessary to insist, are matters which are left to the discretion of the competent authority Furthermore, it does not seem necessary to make it an obligation imposed by the Convention that the competent authority should consult the organisations of employers and workers concerned before deciding to grant exemption in such cases

The exemption provided for in paragraph 3 of this Article is of a different character The General Rules which are required by the Convention to be applied necessarily make provision for a number of situations which do not arise in certain classes of building work where the risk of accident is small Provision is made in this paragraph therefore to enable the competent authority to grant exemption in respect of repair, alteration and maintenance work of this kind from some or all of the General Rules The definition of the kind of work not involving serious risk of accident and the decision as to the particular rules in respect of which exemption may safely be granted are matters which call for careful consideration by all those directly concerned and in this paragraph therefore it is stipulated that before granting the exemption the

competent authority shall consult with the organisations of employers and workers concerned

Enforcement of Safety Regulations (Article 3)

If safety in the building industry is to be ensured, it is not sufficient merely that regulations shall have been made but also that they shall be known to and observed by all those concerned in the actual work of building Article 3 therefore stipulates that definite provision shall be made in the laws and regulations of the various States requiring employers to bring the safety provisions prescribed to the notice of all those concerned Exactly how this shall be done for example, by means of posters or by some other method adapted to the particular circumstances is a matter of detail which is left to be determined by the competent authority This Article also stipulates that the laws and regulations shall define the persons responsible for compliance with the safety provisions prescribed and impose adequate penalties for any violation of those provisions

Inspection (Article 4)

These two clauses of Article 3 lead up to Article 4, which deals with the question of inspection Effective inspection is, of course, necessary to ensure the strict observance of the laws and regulations The organisation of the system of inspection varies considerably in different countries, and matters of detail relating thereto have therefore been included, not in the Draft Convention, but in one of the Recommendations The only obligation imposed by the Convention is the maintenance of a system of inspection adequate to ensure the effective enforcement of the safety provisions prescribed. The obligation imposed may, of course, be fulfilled directly by the State itself through its own inspection service There are, however, cases in which inspection is carried out not by a State service but by local authorities or by an organisation undertaking accident insurance Provided that the system of inspection is adequate, there does not seem to be any necessity for insisting that the organisation of the inspection service shall take a particular form, and Article 4 makes provision for cases in which inspection is not a direct State service by requiring that the State shall be satisfied that an adequate system of inspection is maintained

Areas with Abnormal Conditions (Article 5)

Article 5 of the proposed text introduces a provision which seems to the Office to be specially necessary in the case of a Draft

Convention dealing with the building industry Building of some kind is carried on in every part of every country, but the conditions in which it is carried on may vary very widely Where it is carried on in a town or a densely populated region with good means of communication, no substantial difficulty presents itself in securing adequate enforcement of safety precautions But there are countries in which there are large areas where the population is thinly scattered, or where economic development is at a very different stage from that reached in other parts of the country, because means of communication are lacking or climatic and geographical conditions are exceptional, and where consequently the central Government would find it extremely difficult, if not altogether impossible, to guarantee that detailed safety regulations would at all times and in all circumstances be enforced It would be unreasonable to debar a State which was prepared to enforce safety precautions wherever conditions were normal from ratifying the Convention simply because in part of its territory conditions were so abnormal that it could not give an absolute guarantee of enforcement This situation is dealt with in Article 5, which permits a State that has ratified the Convention to declare in its first annual report the areas in respect of which it does not guarantee complete enforcement of the safety regulations and therefore avails itself of the right to grant exemption conferred by the Article It would not always, of course, be necessary that the exemption should be complete, an area which as a whole might reasonably be regarded as presenting abnormal conditions might nevertheless contain one or more centres of population where regulations could be enforced, or, again, building work might be undertaken in connection, for example, with a development scheme in an abnormal area on such a scale that the ordinary precautions ought to be applied and could be enforced Special reference is made to both these cases in paragraph 1 of the Article It is clearly necessary that there should be no retrogression in respect of the enforcement of safety precautions but rather that the area of enforcement should be extended as soon as circumstances permit Paragraphs 2 and 3 of this Article therefore provide that recourse shall not be had to this exemption in respect of any areas other than those indicated in the first annual report and that in subsequent reports the Member shall indicate the areas in respect of which it has decided that exemption is no longer necessary

Accident Statistics (Article 6)

Several Governments emphasise in their replies to the Questionnaire the desirability of making provision for international comparisons of the number and causes of accidents in the building industry A comparative analysis of accidents on an international scale would certainly be of the utmost value to all the authorities concerned with accident prevention This Article therefore provides

that States which ratify the Convention shall communicate annually to the International Labour Office information as to the number and classification of accidents in the industry The Office will then be in a position to make the information available to all those concerned

General Rules for Accident Prevention (Articles 7 to 18)

Parts II, III and IV, which include Articles 7 to 18, of the proposed Draft Convention do not call for detailed commentary They set out the General Rules to which reference is made in Article 1 (1) (*a*) of the proposed text Part II relates to scaffolding, Part III to hoisting appliances, and Part IV to the equipment which should be provided to meet emergencies The principles on which these Rules have been selected have already been indicated and the Rules speak for themselves

Draft Recommendation relating to Safety Provisions in the Building Industry

This Recommendation is a necessary supplement to the proposed Draft Convention already discussed, and the relationship between the two is indicated in the preamble In the first place, the Model Code, which is annexed to and forms part of the Recommendation, amplifies in detail the General Rules which are laid down in the Draft Convention This is the main purpose of the Recommendation A secondary purpose is to enable States which for any reason cannot proceed immediately to the ratification of the Draft Convention to take advantage of the guidance given by the Model Code for the purpose of applying satisfactory safety precautions in the building industry Yet another purpose is achieved by the Recommendation, which invites Members of the Organisation that have not ratified the Draft Convention and are not therefore under a binding obligation to submit reports concerning the application of the Model Code, to contribute to the general movement for accident prevention by furnishing voluntary reports upon the extent to which in their own laws and regulations they have found it possible to give effect to the provisions of the Code

The combination of the proposed Draft Convention and this Draft Recommendation gives a body of international regulations affording the maximum flexibility and at the same time covering as wide a scope as possible States that ratify the Draft Convention will bind themselves to certain definite obligations and will also undertake to empower an appropriate authority to apply the provisions of the Model Code so far as national circumstances permit States that are unable for the time being to ratify the

Draft Convention will nevertheless be able to accept the Recommendation, and if they do so, while they will not undertake the same binding obligations as those States which have ratified the Convention, they may nevertheless be prepared to furnish the same kind of information as the States which have ratified the Convention Account is thus taken of any difficulties which may arise in respect of early ratification of the Draft Convention, while provision is made for the application of the safety provisions of the Model Code over as wide an area as possible How far that application has taken place it will be possible to judge from the reports furnished every three years by the Members who have ratified the Convention and by those who have accepted the Recommendation

Commentary on the Amendments to the Draft Model Code

Fifteen Governments made specific proposals for alterations to the Code In all about 250 separate amendments were submitted and some 140 amendments have actually been incorporated in the Code The various amendments considered vary extensively in scope a few are mere drafting changes, others involve the deletion of certain clauses, and others again the great majority propose either additional provisions or the amplification of existing provisions Since the amendments submitted are so numerous, it seems hardly possible to enter upon a discussion of the merits of each Moreover, they have been classified and reproduced in full in Chapter I and as their purport is, with very few exceptions, perfectly clear, a detailed commentary may well be dispensed with

Accordingly, all that will be attempted here is an explanation of the considerations which the Office has had in mind in deciding whether an amendment suggested by a Government should be included, with or without modification, or excluded from the revised text of the Model Code which the Office submits for the consideration of the Conference It may be explained that in coming to each decision the Office took into account not only the various Government suggestions, but also the provisions of the laws and regulations relating to the same subject which are in force in the various countries

The Office has accepted all amendments which seemed to it

(*a*) to fill obvious gaps in the Code,
(*b*) to improve the drafting of the Code without materially altering the substance,
(*c*) to introduce new safety provisions likely to meet with a substantial measure of approval,
(*d*) to relax the rigidity of particular provisions without weakening them,

(*e*) to delete what might seem to be unnecessary or undesirable limiting or saving clauses,
(*f*) to remedy defects in technical descriptions

On the other hand the Office rejected proposals which it considered

(*a*) were too drastic, specific or detailed, to be likely to meet with general approval,
(*b*) were clearly only applicable under the conditions obtaining in a very limited number of countries,
(*c*) unduly weakened the Code by introducing undesirable limiting and saving clauses,
(*d*) were outside the scope of the Code

In the light of the Government suggestions the Office has itself introduced a number of amendments that seemed to be desirable with a view either to co-ordinating specific unamended passages with certain Government amendments incorporated elsewhere, or to improving the logical structure of the Code as a whole This last consideration has led to some rearrangement of the subject matter

In Part I on Scaffolding the only provisions for which no specific amendments were proposed by Governments are 8 (3), 9 (3), (5), (6), 15 (3), (7), (8), and 17 (3), in Part II on Hoisting Appliances, 23 (8), 25 (3), (4), 26 (1), 27 (1), 29, 30 (3), (9), (10), (11), and 31 (1), (5), (7), (8) Amendments were proposed by various Governments to all the rules in Part III

It will be remembered that the Committee on Safety in the Building Industry at the Twentieth Session of the Conference considered that the special attention of Governments should be drawn to amendments submitted by the employers' members to secure the insertion of two new rules dealing with the duties of workers and other persons in the matter of safety A number of Governments have supported these amendments and it has been suggested that they should be amplified Accordingly the Office has included in its revised draft of the Code a new Part IV, Miscellaneous, in which a number of rules for workers and other persons in or upon the work are laid down In this Part it is also specified that the safety rules shall be communicated to the workers Another provision, inserted at the suggestion of the British Government, makes the employer responsible for carrying out Parts I to III

The Government amendments incorporated in the draft, either wholly or in part, are as follows

Part I Scaffolding

1 *General Rules* (Now Regulations 1-4)

(1) (Now Regulation 1) Australia (Queensland) (only the words " and sufficient ")

(2) (Now Regulation 2) Egypt, Great Britain
(3) (Now Regulation 3)
Para 1 Great Britain
Para 3 Great Britain
Para 4 Great Britain
(4) (Now Regulation 4 (1))
Para 1 Belgium, Great Britain, Sweden
Para 2 Belgium, Great Britain
(5) (Now Regulation 4 (2)) Great Britain

2 (Now Regulation 5) *Supply and Use of Material*
Great Britain

3 (Now Regulation 6) *Pole and Gabbard Scaffolds*
(1) Para 1 Finland
Para 2 Finland, Great Britain, Sweden
(2) Finland
(3) Belgium, Sweden

4 (Now Regulation 7) *Ladder Scaffolds*
Sweden

5 (Now Regulation 8) *Stability of Pole Gabbard and Ladder Scaffolds*
(2) Sweden
(3) Great Britain

6 (Now Regulation 9) *Cantilever or Jib Scaffolding.*
Finland Great Britain

7 (Now Regulation 10) *Bracket Scaffolds*
Sweden Switzerland

8 (Now Regulation 11) *Heavy Suspended Scaffolds*
Title Belgium
(1) Great Britain
(2) Belgium
(4) Belgium
(5) Belgium

9 (Now Regulation 12) *Light Suspended Scaffolds*
Title Belgium
(2) Canada (Ontario)
(4) Canada (Ontario), Great Britain

10 (Now Regulation 13) *Other Suspended Scaffolds*
Sweden

11 (Now Regulation 14) *Transport and Storage of Material on Scaffolds Distribution of the Load*
Para 1 Great Britain
Para 2 Great Britain
Para 3 Great Britain

12 (Now Regulation 15) *Installation of Lifting Gear on Scaffolds*
Belgium

13 (Now Regulation 16) *Periodic Inspection of Scaffolds*
Great Britain, Sweden

14 (Now Regulation 17) *Use of Scaffolds Constructed by other Contractors*
Canada (Ontario), Great Britain

15 (Now Regulation 18) *Working Platforms*
(1) Belgium, Sweden
(2) Sweden

The Chilean Government proposed 80 cm as the minimum width of platforms, the Finnish Government 45 cm, and the Swiss Government 60 cm The Office proposes to alter the figure from 40 to 60

(4) Sweden
(6) Sweden
(9) Great Britain

16 (Now Regulation 19) *Gangways, Runs, Stairs*
(1) Para 1 Finland, Great Britain, Sweden
Para 2 Sweden, Switzerland
(2) Great Britain, Switzerland

17 (Now Regulation 20) *General Rules concerning Platforms, Gangways, Runs and Stairs*
(1) Great Britain
(2) Great Britain

18 (Now Regulation 21) *Trestles*
Hungary

19 (Now Regulation 22) *Ladders*
(1) Great Britain
(3) Belgium, Great Britain

20 (Now Regulation 23) *Fencing of Openings*
Para 1 Great Britain
New clause (joisting) Sweden

21 (Now Regulation 24) *Roof Work*
(1) Great Britain
(2) Sweden
(3) Sweden

22 (Now Regulation 25) *Miscellaneous Rules*
(1) Great Britain
(2) Great Britain
(4) Sweden

Part II Hoisting Appliances

23 (Now Regulation 26) *General Rules*
(1) Great Britain
(6) Australia (Queensland), Canada (Ontario)

24 (Now Regulation 27) *Winches Crabs and Pulleys*
(3) (*b*) Sweden

25 (Now Regulation 28) *Suspension and Attachment*
(1) (*a*) Great Britain
(*c*) Great Britain
(*f*) Great Britain
(*g*) (New clause) Great Britain
(2) Great Britain
(5) Australia (Queensland)

26 (Now Regulations 29 and 30) *Cranes*
(3) (Now Regulation 29) Great Britain
(4) (Now Regulation 29) Great Britain
(5) (Now Regulation 30)
Para 1 Australia (Queensland)
Para 3 Australia (Queensland)
Para 4 Sweden

27 (Now Regulation 31) *Derrick Cranes*
(3) Great Britain

30 (Now Regulation 34) *Hoists*
Preamble, Sweden
(6) Great Britain
(12) (*c*) Switzerland
(14) Sweden
(15) Australia (Queensland)
New paragraph (testing and examination), Sweden

31 (Now Regulation 35) *Miscellaneous Rules.*
(3) Sweden
(9) Great Britain
New clause (preventing load from striking against objects), Great Britain

Part III Safety Equipment and First Aid

32 (Now Regulation 36) *Safety Equipment*
Sweden

Part IV Miscellaneous

This Part has been drafted in the light of the employers' proposals at the Twentieth Session of the Conference and also the suggestions of the Governments of Australia (Queensland), Great Britain and the Netherlands

In addition to the changes suggested by Governments the Office itself has for the reasons already mentioned, thought it well to include in its proposals to the Conference a certain number of changes from the original text of the Model Code The principal Rules affected are enumerated below, together with an indication of the nature of the change made and the reasons therefor

1 (1) (Now Regulation 1) After "work" the words "of construction, alteration, maintenance, repair and demolition" have been added for the sake of clarity The Hungarian Government pointed out that no mention of demolition appeared in the draft

4 (Now Regulation 4) This paragraph provided for the examination of scaffold parts before erection of the scaffold After "scaffold parts" the words "including scaffolding machines, ropes and cables" have been inserted in order to leave no room for doubt that these appliances are to be considered as scaffold parts for the purposes of the examination in question

8 (1) and (4) (Now Regulation 11 (2) and (8)) The original wording of these paragraphs only mentioned deck irons as means of supporting suspended scaffold platforms Since putlogs are frequently used for this purpose mention has also been made of them

(2) (Now Regulation 11 (4)) The words "The scaffold shall be securely anchored to the building by bolts or equivalent means" have been added The proper anchorage of heavy suspended scaffolds is essential to their safety and it seemed desirable to state this explicitly

New clause (Now Regulation 11 (10)) This provides that scaffolding machines shall be so constructed that the moving parts are readily accessible for inspection The clause has been added because concealed defects in enclosed types of these machines have been responsible for a number of accidents

22 (2) A clause (now Regulation 25 (5)) has been added to require the provision of special lighting when material is being hoisted along scaffolds and structures It is clear that lighting will be required if such work is done at night or in the dark

23 (8) An additional clause (now Regulation 26 (15)) requires crane drivers to be provided with a safe and covered stand, cab or cabin This was undoubtedly the intention of the authors of the Code, but it was not explicitly stated

30 (15) At the suggestion of the British Government, further consideration has been given to the question of hoists in which workers may travel To cover these hoists paragraph 15 on notices (now Regulation 34 (28)) has been amplified and a new paragraph (now Regulation 34 (27)) added to deal with the conditions in which persons may be conveyed The inclusion of this new paragraph entailed the deletion of part of 31 (2) (now Regulation 35 (2))

31 (2) (Now Regulation 35 (2)) See above under 30 (15)

31 (3) The British Government's redraft of paragraph 9 was transferred to paragraph 3 (now Regulation 35 (3) and 4 (1)), which seemed more appropriate The proviso to paragraph 3 was then deleted, as it would have been too wide

Draft Recommendation concerning Inspection in the Building Industry

A substantial majority of Governments was in favour of the adoption by the Conference of a Recommendation concerning inspection in the building industry At the same time, as was pointed out

by certain Governments, it must be remembered that the Conference has already adopted, in 1923 and 1929, Recommendations concerning labour inspection and the prevention of industrial accidents which apply, of course, to the building industry as to other industries In framing the text for a new Recommendation it was therefore necessary not to repeat the suggestions already made to the Governments by the Conference, but to apply the same principles with special reference to the building industry The text itself calls for little commentary

Part I recommends that all building work should be subject to inspection by officers of some public body with the necessary powers to ensure the strict application of the laws and regulations relating to building operations which are in force

Part II deals more particularly with the inspection of scaffolding and machinery This branch of inspection work obviously calls for specialised knowledge and experience, and recommendations as to the qualifications of inspectors are made in paragraphs 4 and 5 In order to put the independence of judgment and action of the inspectors beyond any possible doubt, it is recommended in paragraph 7 that the inspectors should be paid solely by the public authority responsible for inspection and be forbidden to accept any other remuneration

Part III deals with the important question of the qualifications of the workmen engaged in erecting scaffolding and power-driven hoisting machinery Here it is suggested that only workers who are in possession of certificates of qualification issued after examination by the inspection authority should be employed on such work

Finally, Part IV deals with the equally important question of collaboration between the inspection authority, the employers and the workers for the purpose not merely of ensuring compliance with the safety provisions in force, but also of securing the most effective action generally to reduce the risk of accident to a minimum It has seemed advisable to deal with this matter in the same text as that dealing with inspection, since there is a close connection between the two matters and the adoption of a separate Recommendation might have meant, as suggested in Chapter II, unnecessary duplication of provisions already appearing in the Recommendation of 1929

Draft Recommendation concerning Vocational Education for the Building Industry

It has been thought desirable to submit to the Conference a separate text dealing with vocational education even though the subject is one in which co-operation between the inspecting authority, the employers and the workers in industry is desirable The general question of vocational education and apprenticeship

is to be discussed by the Conference at a later session and it has already been dealt with to some extent in the Recommendation of 1929 concerning the prevention of industrial accidents The Draft Recommendation now submitted to the Conference therefore deals more particularly with the subject matter of the Draft Convention, namely, safety provisions concerning scaffolding and hoisting machinery The Recommendation is to the effect that both theoretical and practical instruction in regard to scaffolding and hoisting machinery and to the supervision of building work should be included in the curricula for building students in technical and vocational schools

Draft Recommendation concerning Safety Provisions in Government Building Contracts

Nearly all the replies from Governments were in favour of the inclusion in the set of international regulations concerning safety in the building industry of a provision dealing specially with work carried out under contract for a Government or other public authority In some cases work so executed may not necessarily and without exception be subject to the provisions of the law applying to private contracts Even where the ordinary law does apply it would be desirable that the State should set an example The laws and regulations actually in force at the time may fall somewhat short of the full prescriptions of the Model Code, owing to some difficulty in requiring complete application of the Code to the whole of the building industry In such a case it might nevertheless be possible, and if possible would certainly be desirable, that certain provisions of the Model Code should be observed in the execution of a particular contract Paragraph 2 of the draft text submitted recommends that the State and public authorities should lead the way, and so hasten the time when more complete application of the Code will become possible generally, by imposing in their contracts a special obligation on the contractor to comply with any provisions of the Model Code which are not yet in general operation but which the competent authority considers could be applied in the particular case Paragraph 3 of the proposed text is a safeguarding clause intended to meet the objection raised by the British Government It makes it plain that any special stipulations concerning safety measures which may be included in State and public authority contracts are intended merely to give precision to, and not in any way to detract from, the responsibility which rests permanently on the employer to do whatever lies within his power to avoid accidents

* * *

The Office has decided not to incorporate in the texts the suggestion made by several Governments regarding the imposition

of obligations on makers and vendors of hoisting machinery. The suggestion was to the effect that it should be compulsory to equip this machinery, before delivery, with the safety devices required by national legislation

Such requirement would go beyond those of the 1929 Recommendation concerning responsibility for the protection of power-driven machinery This matter is of such importance for the safety of all workers that it seems worthy of further study by the Office and subsequent consideration by the Conference

PROPOSED TEXTS

PROPOSED DRAFT CONVENTION RELATING TO SAFETY PROVISIONS IN THE BUILDING INDUSTRY

The General Conference of the International Labour Organisation,

Having been convened at Geneva by the Governing Body of the International Labour Office, and having met in its Twenty-third Session on 3 June 1937, and

Having decided upon the adoption of certain proposals with regard to safety provisions for workers in the building industry with reference to scaffolding and hoisting machinery, which is the first item on the Agenda of the Session, and

Having determined that these proposals shall take the form of a Draft International Convention accompanied by a Recommendation embodying a Model Code of Safety Regulations,

adopts, this day of June of the year one thousand nine hundred and thirty-seven, the following Draft Convention which may be cited as the Safety Provisions (Building) Convention, 1937

Part I: Obligations of Parties to Convention

Article 1

1 Each Member of the International Labour Organisation which ratifies this Convention undertakes that it will maintain in force laws or regulations

(*a*) which ensure the application of the General Rules set forth in Parts II to IV of this Convention, and

(*b*) in virtue of which an appropriate authority has power to make regulations for the purpose of giving such effect as may be possible and desirable under national conditions to the provisions of the Model Code annexed to the Safety Provisions (Building) Recommendation, 1937, or of any revised Model Code subsequently recommended by the International Labour Conference

2 Each such Member further undertakes that it will communicate every third year to the International Labour Office a report

AVANT-PROJET DE CONVENTION CONCERNANT LES PRESCRIPTIONS DE SÉCURITÉ DANS L'INDUSTRIE DU BATIMENT

La Conférence generale de l'Organisation internationale du Travail,

Convoquée à Genève par le Conseil d'administration du Bureau international du Travail et s'y étant reunie le 3 juin 1937 en sa vingt-troisieme session,

Après avoir décidé d'adopter diverses propositions relatives a des prescriptions de securite pour les travailleurs de l'industrie du bâtiment en ce qui concerne les echafaudages et les appareils de levage, question qui constitue le premier point a l'ordre du jour de la session,

Après avoir decidé que ces propositions doivent prendre la forme d'un projet de Convention internationale, accompagné d'une Recommandation comprenant un Règlement-type de securite,

Adopte, ce jour de juin mil neuf cent trente-sept, le projet de convention ci-après, qui sera dénommé Convention concernant les prescriptions de sécurité (bâtiment), 1937

Partie I: Obligations des parties à la convention

Article 1

1 Tout Membre de l'Organisation internationale du Travail qui ratifie la présente convention s'engage a avoir une législation

a) qui assure l'application des Dispositions générales faisant l'objet des parties II a IV de la presente convention,

b) en vertu de laquelle une autorite appropriee a le pouvoir d'édicter des règlements donnant effet, dans la mesure où il est possible et désirable de le faire étant donne les conditions existant dans le pays, aux dispositions du reglement-type annexé a la recommandation concernant les prescriptions de sécurité (bâtiment), 1937, ou a celles de tout règlement-type revise qui serait recommandé ultérieurement par la Conference internationale du Travail

2 Chacun de ces Membres s'engage en outre a faire parvenir, tous les trois ans, au Bureau international du Travail, un rapport

indicating the extent to which effect has been given to the provisions of the Model Code annexed to the Safety Provisions (Building) Recommendation, 1937, or of any revised Model Code subsequently recommended by the International Labour Conference

ARTICLE 2

1. The laws or regulations for ensuring the application of the General Rules set forth in Parts II to IV of this Convention shall apply

(*a*) to the construction of all types of buildings; and

(*b*) to all work in connection with the repair, alteration, maintenance and demolition of buildings

2 The said laws or regulations may provide that the competent authority may exempt from all or any of their provisions buildings of not more than one storey on rural sites.

3 The said laws or regulations may provide that the competent authority may, after consultation with the organisations of employers and workers concerned where such exist, exempt from all or any of their provisions repair, alteration and maintenance work of such a character that it does not involve any serious risk for the workers employed

ARTICLE 3

The laws or regulations for ensuring the application of the General Rules set forth in Parts II to IV of this Convention, and regulations made by the appropriate authority for the purpose of giving effect to the Model Code annexed to the Safety Provisions (Building) Recommendation, 1937, shall

(*a*) require employers to bring them to the notice of all persons concerned in a manner approved by the competent authority,

(*b*) define the persons responsible for compliance therewith, and

(*c*) prescribe adequate penalties for any violation thereof

ARTICLE 4

Each Member which ratifies this Convention undertakes to maintain, or satisfy itself that there is maintained, a system of inspection adequate to ensure the effective enforcement of the provisions relating to safety precautions in the building industry

ARTICLE 5

1 In the case of a Member the territory of which includes large areas where, by reason of the sparseness of the population or the

indiquant dans quelle mesure il a eté donné effet aux dispositions du règlement-type annexe a la recommandation concernant les prescriptions de securite (bâtiment), 1937, ou à tout reglement-type revisé qui serait recommandé ultérieurement par la Conference internationale du Travail

ARTICLE 2

1 La legislation assurant l'application des Dispositions générales faisant l'objet des parties II a IV de la présente convention, doit s'appliquer

a) a la construction de tout type de bâtiment,

b) à tout travail en relation avec la reparation, la transformation, l'entretien et la démolition des bâtiments

2 Ladite législation peut prevoir que l'autorite compétente pourra etablir des dérogations à toutes ou à certaines parties de ses dispositions dans le cas de bâtiments n'ayant pas plus d'un etage et situes a la campagne

3 Ladite législation peut prévoir que l'autorité compétente pourra, après consultation des organisations d'employeurs et de travailleurs intéressees, s'il en existe, etablir des dérogations a toutes ou a certaines parties de ses dispositions pour les travaux en relation avec la reparation, la transformation et l'entretien, quand ils revêtent un caractere tel qu'aucun risque sérieux n'est encouru par les travailleurs occupés a ces travaux

ARTICLE 3

La legislation assurant l'application des Dispositions genérales faisant l'objet des parties II à IV de la presente convention et les règlements pris par l'autorité appropriee pour donner effet au règlement-type annexe à la recommandation concernant les prescriptions de securité (bâtiment), 1937, doivent

a) exiger que l'employeur porte cette legislation et ces règlements à la connaissance de toutes les personnes interessées, selon une formule approuvée par l'autorite competente,

b) définir les personnes responsables de leur application,

c) prévoir des penalités appropriées en cas de violation des obligations imposées

ARTICLE 4

Tout Membre qui ratifie la présente convention s'engage à avoir, ou à s'assurer qu'il existe, un systeme d'inspection tel qu'il garantisse une application effective de la reglementation relative aux prescriptions de securite dans l'industrie du bâtiment

ARTICLE 5

1 Lorsque le territoire d'un Membre comprend de vastes régions où, en raison du caractère clairsemé de la population ou

stage of economic development of the area, the competent authority considers it impracticable to enforce the provisions of this Convention, the authority may exempt such areas from the application of the Convention either generally or with such exceptions in respect of particular localities or particular kinds of building activity as it thinks fit

2 Each Member shall indicate in its first annual report upon the application of this Convention any areas in respect of which it proposes to have recourse to the provisions of this Article and no Member shall, after the date of its first annual report, have recourse to the provisions of this Article except in respect of areas so indicated

3 Each Member having recourse to the provisions of this Article shall indicate in subsequent annual reports any areas in respect of which it renounces the right to have recourse to the provisions of this Article

ARTICLE 6

Each Member which ratifies this Convention undertakes to communicate annually to the International Labour Office the latest statistical information relating to the number and classification of accidents in the building industry

Part II: General Rules as to Scaffolds

ARTICLE 7

1 Suitable scaffolding shall be provided for workmen for all work of construction, repair, alteration, maintenance or demolition that cannot be safely done from a ladder or by other means

2 A scaffold shall not be constructed, taken down, or substantially altered except

(*a*) under the supervision of a competent and responsible person, and

(*b*) as far as possible by skilled and experienced workers

3 All scaffolding and appliances connected therewith and all ladders shall

(*a*) be of sound material,

(*b*) be of adequate strength having regard to the loads and strains to which they will be subjected; and

(*c*) be maintained in proper condition

4 Scaffolds shall be so constructed that no part thereof can be accidentally displaced

en raison de l'etat de développement économique, l'autorité competente estime impraticable d'appliquer les dispositions de la presente convention, elle peut exempter lesdites régions de l'application de la convention, soit d'une maniere génerale, soit avec les exceptions qu'elle juge appropriees a l'egard de certaines localités ou de certains genres de constructions

2 Tout Membre doit indiquer, dans son premier rapport annuel sur l'application de la présente convention, toute region pour laquelle il se propose d'avoir recours aux dispositions du present article Par la suite, aucun Membre ne pourra recourir aux dispositions du présent article, sauf en ce qui concerne les regions qu'il aurait ainsi indiquees

3 Tout Membre recourant aux dispositions du présent article doit indiquer, dans les rapports annuels ultérieurs, les régions pour lesquelles il renonce au droit de faire appel auxdites dispositions

ARTICLE 6

Tout Membre qui ratifie la présente convention s'engage à communiquer tous les ans au Bureau international du Travail les renseignements statistiques les plus récents sur le nombre et la classification des accidents dans l'industrie du bâtiment

Partie II: Dispositions générales relatives aux échafaudages

ARTICLE 7

1. Une installation d'echafaudages appropriée doit être prevue pour les ouvriers et pour tout travail de construction, de reparation, de transformation, d'entretien ou de démolition qui ne peut pas être executé sans danger avec une échelle ou par d'autres moyens

2 Les échafaudages ne doivent pas être construits, sensiblement modifiés ou demolis, si ce n'est

a) sous la direction d'une personne compétente responsable,

b) autant que possible par des ouvriers qualifiés et habitués à ce genre de travail

3 Tous les échafaudages, les dispositifs qui s'y rattachent ainsi que toutes les échelles doivent être

a) constitués de materiaux de bonne qualité,
b) de résistance appropriée, compte tenu des charges et des efforts auxquels ils sont soumis,
c) maintenus en bon état

4 Les échafaudages doivent être construits de manière a empêcher le déplacement accidentel d'une quelconque de leurs parties

5 Scaffolds shall not be overloaded and so far as practicable the load shall be evenly distributed.

6 Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of such scaffolds.

7 Scaffolds shall be periodically inspected by a competent person

8 Employers shall take special precautions before allowing work to proceed on scaffolds which have not been erected by them or under their superintendence.

ARTICLE 8

1 Working platforms, gangways and stairways shall be

(*a*) so constructed that no part thereof can sag unduly or unequally,

(*b*) so constructed and maintained as not to produce unnecessary risk of persons tripping or slipping, and

(*c*) kept free from any unnecessary obstruction

2 In the case of working platforms, gangways, working places and stairways the height of which from the ground or floor exceeds a height to be prescribed by national laws or regulations,

(*a*) every outside working platform and every gangway shall be closely boarded,

(*b*) every working platform and gangway shall have adequate width, and

(*c*) every working platform, gangway, working place and stairway shall be provided with suitable guard-rails and toe-boards

ARTICLE 9

1 Every opening in the floor of a building or in a working platform shall, except for the time and to the extent required to allow the access of persons or the transport or shifting of materials, be provided with efficient means to prevent the fall of persons or articles

2 Where persons are employed on a roof where there is a risk of falling more than a height to be prescribed by national laws or regulations, efficient precautions shall be taken to prevent the fall of persons or materials

3 Adequate precautions shall be taken to prevent persons

5 Les echafaudages ne doivent pas être surchargés et les charges doivent être réparties aussi uniformement que possible

6 Avant d'installer des appareils de levage sur des échadaudages, des precautions speciales doivent être prises pour assurer la résistance et la stabilité de ces échafaudages

7. Les échafaudages doivent être inspectés périodiquement par une personne compétente

8. Les employeurs doivent prendre des precautions spéciales avant de permettre d'effectuer un travail sur des échaufaudages qui n'ont pas été construits par eux ou sous leur direction

Article 8

1 Les plates-formes de travail, les passerelles et les escaliers doivent être

a) construits de maniere qu'aucune de leurs parties ne puisse subir une flexion exagerée ou inegale,

b) construits et entretenus de manière à ne pas entraîner de risques évitables de trebuchements ou de glissement de personnes,

c) être maintenus libres de tout encombrement inutile

2 Dans le cas de plates-formes de travail, de passerelles, d'emplacements de travail et d'escaliers, situes au-dessus du sol ou d'un plancher, a une hauteur excedant une limite a fixer par la legislation nationale

a) toute plate-forme exterieure de travail ou toute passerelle doit avoir un plancher entierement jointif,

b) toute plate-forme de travail ou toute passerelle doit avoir une largeur suffisante,

c) toute plate-forme de travail, toute passerelle, tout emplacement de travail ou tout escalier, doit être muni de garde-corps et de plinthes appropriés

Article 9

1 Toute ouverture pratiquee dans un plancher de bâtiment ou dans une plate-forme de travail doit, sauf aux moments et dans la mesure nécessaire pour permettre l'accès des personnes, le transport ou le déplacement des matériaux, être munie de dispositifs efficaces pour empêcher la chute de personnes ou d'objets

2 Lorsque des personnes doivent être employées sur un toit présentant des dangers de chute de personnes ou de matériaux d'une hauteur supérieure a celle a determiner par la legislation nationale, des precautions efficaces doivent être prises pour empêcher la chute de ces personnes ou de ces materiaux

3. Des précautions appropriees doivent être prises pour empêcher

being struck by articles falling from more than a height to be prescribed by national laws or regulations

ARTICLE 10

1 Safe means of access shall be provided to all working platforms and other working places

2 Every ladder used as a means of communication shall be securely fixed and of such length as to provide secure handhold and foothold at every position at which it is used

3 Every place where building work is carried on and means of approach thereto shall be efficiently lighted

4 Adequate precautions shall be taken to prevent danger from electrical equipment

5 No materials on the site shall be so stacked or placed as to cause danger to any person

Part III: General Rules as to Hoisting Appliances

ARTICLE 11

1 Hoisting machines and tackle, including their attachments, anchorages and supports, shall

(*a*) be of good mechanical construction, sound material and adequate strength and free from patent defect,

(*b*) be kept in good repair and in good working order

2 Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect

ARTICLE 12

1 Hoisting machines and tackle, including their attachments, anchorages and supports, shall be periodically examined in position

2 Every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined

ARTICLE 13

1 Every crane driver or hoisting appliance operator shall be properly qualified

les personnes d'être atteintes par des objets tombant d une hauteur superieure a celle a determiner par la legislation nationale

ARTICLE 10

1 Des moyens d'accès sûrs doivent être prévus pour toutes les plates-formes et tous les autres emplacements de travail

2 Toute échelle utilisee comme moyen de communication doit être solidement fixée et d'une longueur suffisante pour offrir, dans toutes les positions dans lesquelles elle est utilisee, un appui sûr aux mains et aux pieds

3 Tous lieux où se poursuivent des travaux de bâtiment et leurs accès doivent être convenablement éclairés

4 Des précautions speciales doivent être prises pour prevenir les dangers dus aux installations electriques

5 Les matériaux se trouvant sur le chantier ne doivent pas être empiles ou disposés d'une manière pouvant mettre des personnes en danger

Partie III · Dispositions générales relatives aux appareils de levage

ARTICLE 11

1 Les machines et les dispositifs de levage, y compris leurs fixations, ancrages et supports, doivent être

a) d'une bonne construction mécanique, etablis avec des materiaux solides, de resistance appropriée et exempts de défauts manifestes,

b) être tenus en bon état et en bon ordre de marche

2 Tout câble utilisé pour le levage ou la descente de materiaux ou comme moyen de suspension doit être de qualité appropriee, suffisamment resistant et exempt de défauts manifestes

ARTICLE 12

1 Les machines et les dispositifs de levage y compris leurs fixations, ancrages et supports, doivent être vérifiés périodiquement à leur emplacement de fonctionnement

2 Toute chaîne, tout anneau, crochet, boucle, emerillon ou palan utilise pour le levage ou la descente de materiaux ou comme moyen de suspension, doit être vérifié périodiquement

ARTICLE 13

1 Tout conducteur de grue ou d'autres engins de levage doit être dûment qualifié

2. No person under an age to be prescribed by national laws or regulations shall be employed to handle hoisting appliances or to give signals to the operator

ARTICLE 14

1 Adequate steps shall be taken to ascertain the safe working load of every hoisting machine and of every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering materials or as a means of suspension

2 Every hoisting machine and all gear referred to in the preceding paragraph shall be plainly marked with the safe working load

3 In the case of cranes with a derricking jib the safe working load shall be ascertained and marked for various radii of the jib

4 No part of any hoisting machine or of any gear referred to in paragraph 1 of this Article shall be loaded beyond the safe working load except for the purpose of testing

ARTICLE 15

1 Motors, gearing, transmissions, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards

2 Hoisting appliances shall be provided with such means as will reduce to a minimum the risk of the accidental descent of a load while in process of being lifted or lowered

3 Adequate precautions shall be taken to reduce to a minimum the risk of loads or parts of loads becoming accidentally displaced during hoisting or lowering

Part IV: General Rules as to Equipment

ARTICLE 16

All necessary safety equipment shall be provided and used

ARTICLE 17

When work is carried on adjoining water all necessary equipment shall be furnished and all necessary measures taken for the prompt rescue of any person who may fall into the water

ARTICLE 18

At every place where building is carried on there shall be provided a sufficient number of first-aid boxes or cupboards each of which shall be readily accessible and plainly marked and shall contain suitable first-aid materials

2 Aucune personne ne doit être employée pour manœuvrer un appareil de levage ou donner des signaux au conducteur, a moins d'avoir atteint l'âge qui sera prescrit par la législation nationale.

ARTICLE 14

1 Des mesures appropriées doivent être prises pour déterminer la charge utile admissible de toute machine de levage, chaîne, tout anneau, crochet, boucle, emerillon ou moufle, utilise pour le levage ou la descente de materiaux ou comme moyen de suspension

2 Toute machine de levage ou tout engin mentionné au paragraphe precedent doit porter, visiblement marquee, sa charge utile admissible

3 En ce qui concerne les grues à flèche a inclinaison reglable, la charge utile admissible doit être determinee et marquée pour les divers angles d'inclinaison de la fleche

4 Aucune partie d'une machine de levage ou d'un des engins mentionnés au paragraphe 1 de cet article, ne doit être chargée au delà de la charge utile admissible, sauf lorsqu'il s'agit d'essais

ARTICLE 15

1 Les moteurs, engrenages, transmissions, conducteurs electriques et autres parties dangereuses des appareils de levage doivent être munis de dispositifs de protection efficaces

2 Les appareils de levage doivent être pourvus de moyens propres a réduire au minimum le risque de descente accidentelle d'une charge pendant la montée ou la descente

3 Des précautions appropriees doivent être prises pour reduire à un minimum le risque de deplacement accidentel des charges ou parties des charges pendant la montee ou la descente

Partie IV: Dispositions générales relatives a l'équipement

ARTICLE 16

Tout l'équipement de protection necessaire doit être mis a disposition et employé

ARTICLE 17

Lorsque les travaux sont effectués a proximité de l'eau, tout l'equipement necessaire doit être fourni et toutes les mesures necessaires prises en vue du sauvetage rapide de toute personne tombée à l'eau

ARTICLE 18

Sur chaque chantier de bâtiment, il doit être prévu un nombre suffisant de boîtes ou d'armoires de matériel de premiers secours, chacune d'entre elles devant être facilement accessible, porter visiblement l'indication de son contenu et être munie du materiel de premiers secours approprie

DRAFT RECOMMENDATION RELATING TO SAFETY PROVISIONS IN THE BUILDING INDUSTRY

The General Conference of the International Labour Organisation,

Having been convened at Geneva by the Governing Body of the International Labour Office, and having met in its Twenty-third Session on 3 June 1937, and

Having decided upon the adoption of certain proposals with regard to safety provisions for workers in the building industry with reference to scaffolding and hoisting machinery, which is the first item on the Agenda of the Session, and

Having determined that these proposals shall take the form of a Draft International Convention accompanied by a Recommendation embodying a Model Code of Safety Regulations,

adopts, this day of June of the year one thousand nine hundred and thirty-seven, the following Recommendation which may be cited as the Safety Provisions (Building) Recommendation, 1937

Whereas it is desirable, with a view to intensifying the efforts being made by the Members of the Organisation to reduce the risk of accident in the building industry, to submit for their consideration model safety provisions and to arrange for an exchange upon an international scale of the experience acquired in the application of these provisions,

Whereas the Safety Provisions (Building) Convention, 1937, embodies a series of general principles which require to be supplemented by detailed safety regulations,

Whereas it is therefore desirable that Members of the Organisation which ratify that Convention should have at their disposal a Model Code of safety regulations which have been proved by experience to be calculated to reduce the risk of accidents; and

Whereas it is also desirable that such a Model Code should be available for the guidance of any Members which may be unable to ratify immediately the Safety Provisions (Building) Convention,

The Conference recommends

(*a*) that each Member of the International Labour Organisation should give the fullest effect possible and desirable under

PROJET DE RECOMMANDATION CONCERNANT LES PRESCRIPTIONS DE SÉCURITÉ DANS L'INDUSTRIE DU BATIMENT

La Conference generale de l'Organisation internationale du Travail,

Convoquee a Genève par le Conseil d'administration du Bureau international du Travail et s'y etant réunie le 3 juin 1937 en sa vingt-troisième session,

Après avoir décide d'adopter diverses propositions relatives a des prescriptions de securite pour les travailleurs de l'industrie du bâtiment en ce qui concerne les échafaudages et les appareils de levage, question qui constitue le premier point a l'ordre du jour de la session,

Apres avoir décidé que ces propositions doivent prendre la forme d'un projet de Convention internationale, accompagné d'une Recommandation comprenant un Reglement-type de securité,

Adopte, ce jour de juin mil neuf cent trente-sept, la recommandation ci-après, qui sera denommée Recommandation sur la sécurite des travailleurs (bâtiment), 1937

Considerant qu'il est désirable, en vue d'intensifier les efforts faits par les Membres de l'Organisation pour reduire le risque d'accidents dans l'industrie du bâtiment, de soumettre à leur examen une reglementation-type de sécurite et d'organiser un échange, sur une base internationale, des résultats obtenus en matiere d'application de cette reglementation,

Considérant que la convention concernant les prescriptions de securité (bâtiment), 1937 contient une série de principes généraux, qui doivent être complétés par des dispositions detaillees de securite,

Considerant qu'il est, en conséquence, désirable que les Membres de l'Organisation qui ratifient cette convention aient a leur disposition un reglement-type contenant des mesures dont l'experience a prouve qu'elles sont de nature a réduire le risque d'accidents,

Considérant qu'il est egalement desirable qu'un tel reglement-type soit placé, pour les guider, a la disposition des Membres qui ne verront pas la possibilite de ratifier immediatement la convention concernant les prescriptions de sécurite (bâtiment), 1937,

La Conférence recommande

a) que tout Membre de l'Organisation internationale du Travail donne effet, dans la mesure la plus complete où il est possible

national conditions to the provisions of the annexed Model Code, and

(*b*) that any Members of the International Labour Organisation which have not ratified the Safety Provisions (Building) Convention, 1937, should communicate every third year to the International Labour Office on a voluntary basis a report indicating the extent to which effect has been given to the Model Code

ANNEX

MODEL CODE

Part I: Scaffolds

Regulation 1 Necessity for Scaffolding

Suitable and sufficient scaffolding shall be provided for workmen for all work of construction, alteration, maintenance, repair or demolition that cannot safely be done from a ladder or by other means

Regulation 2 Qualifications of Scaffold Erectors

A scaffold shall not be constructed, substantially altered, or taken down, except under the direction of a competent and responsible person and as far as possible by skilled and experienced workers

Regulation 3 Quality of Materials

1 All scaffolding and appliances connected therewith and all ladders shall be of sound material and be of adequate strength having regard to the loads and strains to which they will be subjected

2 The wooden parts used for scaffolds, gangways, runs and ladders shall be of good quality, shall have long fibres, shall be in perfect condition, and shall not be painted or in any other way treated so that defects cannot easily be seen

3 Timber used for scaffolding shall have the bark completely stripped off

4 Boards and planks used for scaffolding shall be protected against splitting

5 Metal parts of scaffolds shall have no cracks and shall be free from corrosion or other defects

6 Cast-iron nails shall not be used

et désirable de le faire etant donné les conditions existant dans le pays, aux dispositions du reglement-type annexe,

b) que les Membres de l'Organisation internationale du Travail qui n'ont pas ratifie la convention concernant les prescriptions de securité (bâtiment), 1937, communiquent de leur plein gré, tous les trois ans, au Bureau international du Travail, un rapport indiquant la mesure dans laquelle ils ont donné effet au reglement-type

ANNEXE

RÈGLEMENT-TYPE

Titre I: Echafaudages

Regle 1 Travaux necessitant l'emploi d'echafaudages

Une installation d'échafaudages appropriee et suffisante doit être prevue pour les ouvriers pour tout travail de construction, de transformation, d'entretien, de reparation ou de demolition qui ne peut pas être execute sans danger avec une echelle ou par d'autres moyens

Regle 2 Qualifications exigées des monteurs d'échafaudages

Les échafaudages ne doivent être construits, sensiblement modifiés ou démolis que sous la direction d'une personne compétente responsable et, autant que possible, par des ouvriers qualifiés et habitués a ce genre de travail

Règle 3 Qualité des materiaux

1 Tous les échafaudages, les dispositifs qui s'y rattachent, ainsi que toutes les echelles doivent être constitués de matériaux de bonne qualité et être d'une resistance suffisante, compte tenu des charges et des efforts auxquels ils sont soumis

2 Les pieces en bois utilisées pour la construction des échafaudages, des ponts de service, des passerelles et des echelles, doivent être de bonne qualite, avoir de longues fibres et être en parfait etat Elles ne doivent pas être peintes ni soumises a aucun autre traitement pouvant empêcher de voir facilement leurs defauts

3 Le bois utilisé pour la construction des échafaudages doit être completement debarrassé de son écorce

4 Les mesures nécessaires doivent être prises pour que les planches et les madriers, utilisés pour la construction des échafaudages, ne se fendent pas

5 Les parties metalliques des échafaudages ne doivent pas être criquées ni atteintes par la corrosion ou presenter d'autres défauts

6 Les clous en fonte ne doivent pas être employés

Regulation 4 Inspection and Storage of Materials

1 Scaffold parts, including scaffolding machines and ropes and cables, shall be examined by experienced persons on each occasion before erection and shall not be used on any occasion unless in every respect they possess the qualities required for their purpose

2 Any rope that has been in contact with acids or other corrosive substances or is otherwise defective shall not be used

3 All materials used in the construction of scaffolds shall be stored under good conditions and apart from any material unsuitable for scaffolding

Regulation 5 Supply and Use of Material and Maintenance of Scaffolds

1 Sufficient material shall be provided for and shall be used in the construction of scaffolds

2 (1) Every scaffold shall be maintained in good and proper condition and every part shall be kept fixed or secured to prevent accidental displacement

(2) No scaffold shall be partly dismantled and left so that it is capable of being used unless it continues to comply with these Regulations

Regulation 6 Pole and Gabbard Scaffolds

1. Pole standards and the legs of gabbard scaffolds shall be

(*a*) vertical or slightly inclined towards the building, and
(*b*) fixed sufficiently close together to secure the stability of the scaffolding having regard to all the circumstances

2 The stability of pole standards shall be secured

(*a*) by letting the pole the necessary distance into the ground according to the nature of the soil, or
(*b*) by properly placing the pole on a suitable plank or other adequate sole plate in such a manner that slipping is securely prevented, or
(*c*) in any other sufficient way

3 When two scaffolds meet at a corner of a building under construction, a pole standard shall be placed at the corner on the outside of the scaffolds

4 (1) Ledgers shall be practically level and securely fastened to the uprights by bolts, dogs, ropes or other efficient means.

Règle 4 Inspection et emmagasinage des matériaux

1 Avant chaque montage toutes les parties constituantes d'un échafaudage, y compris les treuils, les câbles et les cordes, doivent être examinées par des personnes qualifiées et ne doivent être utilisees que si elles repondent en tous points aux qualités requises par leur emploi

2 Les cordes et les câbles qui auraient éte en contact avec des acides ou d'autres substances corrosives, ou qui présenteraient des défauts ne doivent pas être utilisés

3 Tous les materiaux utilisés pour la construction des échafaudages doivent être emmagasinés dans de bonnes conditions et sépares de ceux impropres a ce genre de construction

Règle 5 Fourniture et utilisation des matériaux et entretien des échafaudages

1 On doit fournir et employer du matériel en quantité suffisante pour la construction des échafaudages

2 1) Les echafaudages doivent être maintenus en bon état et chacune de leurs parties doit être attachée ou arrimée de manière a prévenir son déplacement accidentel

2) Aucun echafaudage ne doit être partiellement démonté et laissé dans un état permettant son emploi que si la partie restante continue à être conforme au présent règlement

Regle 6 Echafaudages fixes à montants

1 Les montants, échasses et supports des échafaudages fixes doivent être

a) verticaux ou légèrement inclinés vers le bâtiment, et

b) fixés assez près les uns des autres pour assurer la stabilité de l'échafaudage eu égard a toutes les circonstances qui peuvent se présenter

2 La stabilité des montants doit être assuree

a) en les scellant dans le sol a la profondeur nécessaire suivant la nature du terrain, ou

b) en les plaçant sur des madriers ou autres assises appropriées de manière a empêcher d'une façon absolue leur glissement; ou

c) par un autre moyen approprié

3 Lorsque deux echafaudages se rejoignent a l'angle d'un bâtiment, un montant place du côté extérieur des échafaudages doit être fixé a cet endroit

4 1) Les longerons doivent être pratiquement horizontaux et solidement fixés aux montants par des boulons, des crampons, des cordes ou d'autres moyens efficaces

(2) The ends of two consecutive ledgers at the same level shall meet at an upright and be securely joined together

5 (1) Putlogs shall be straight and securely fastened to the ledgers

(2) If ledgers are not used the putlogs shall be fastened to the uprights and supported by securely fastened cleats

(3) Putlogs which have one end supported by a wall shall have at that end a plane supporting surface at least 10 cm deep

(4) The dimensions of the putlogs shall be appropriate to the load to be borne by them

(5) The distance between two consecutive putlogs on which a platform rests

(*a*) shall be fixed with due regard to the anticipated load and the nature of the platform flooring, and

(*b*) shall in no case exceed 1 m with planks 30 mm thick, 1 50 m with planks 40 mm thick, and 2 m with planks 50 mm thick

Regulation 7 Ladder Scaffolds

1 Ladder scaffolds shall be used only for light work requiring little material (renovation, painting and the like)

2 The ladders serving as the uprights of ladder scaffolds

(*a*) shall be of adequate strength, and

(*b*) shall either

(i) be let into the ground to the necessary depth according to the nature of the soil,
or

(ii) be placed on sole plates or boards so that the two uprights of each ladder rest evenly on the base, and be suitably fastened at the feet to prevent them from slipping

3 If a ladder is used to extend another, the two shall overlap at least 1 50 m and shall be securely fastened together

Regulation 8 Stability of Pole, Gabbard and Ladder Scaffolds

1 Every scaffold shall be sufficiently and properly braced

2) Les extrémités de deux longerons consecutifs, situées au même niveau, doivent se reunir sur un montant et être solidement jointes ensemble

5 1) Les boulins doivent être droits et solidement attaches aux longerons

2) S'il n'est pas fait usage de longerons, les boulins doivent être attachés aux montants et s'appuyer sur des tasseaux solidement fixés

3) Les boulins, dont une extremite est supportee par un mur, doivent avoir, à cette extrémite, une surface portante plane d'au moins 10 cm de longueur

4) Les dimensions des boulins doivent être en rapport avec les charges qu'ils auront a supporter

5) La distance entre deux boulins consecutifs soutenant une plate-forme

a) doit être déterminée en tenant compte des charges prévues et de la nature du plancher de la plate-forme,

b) ne doit en aucun cas depasser 1 m pour des planches de 30 mm , 1 m 50 pour celles de 40 mm et 2 m pour celles de 50 mm d'épaisseur

Règle 7 Echafaudages fixes a échelles

1 Les échafaudages à échelles ne doivent être utilises que pour des travaux légers n'exigeant que la mise en œuvre de peu de matériaux (travaux de ravalement, peinture et autres travaux analogues)

2 Les echelles servant de montants pour les echafaudages à echelles

a) doivent être d'une résistance suffisante, et

b) doivent être.

i) ou bien scellées dans le sol à la profondeur necessaire suivant la nature du terrain,

ii) ou bien placées sur des semelles ou des madriers de maniere que les deux montants de chaque echelle reposent également sur cette base, et fixés solidement par leurs pieds pour éviter leur glissement

3 Si une échelle est utilisee pour en prolonger une autre, les deux échelles doivent se recouvrir sur une longueur d'au moins 1 m 50 et être solidement fixées ensemble

Règle 8 Stabilité des échafaudages fixes à montants et des echafaudages a echelles

1 Tout echafaudage doit être entretoise d'une façon suffisante et appropriee

2 Every scaffold shall, unless it is an independent scaffold, be rigidly connected with the building at suitable vertical and horizontal distances

3. If the scaffold is an independent scaffold, at least one-third of the putlogs used for supporting any working platform more than 3 5 m above the ground or floor shall remain in position until the scaffolding is finally removed, and remain securely fastened to the ledgers or the uprights as the case may be

4 All structures and appliances used as supports for working platforms shall be of sound construction, have a firm footing, and be suitably strutted and braced to make them stable

5 Loose bricks, drain pipes, chimney pots or other unsuitable material shall not be used for the construction or support of scaffolds.

Regulation 9 Cantilever or Jib Scaffolding

1 Cantilever or jib scaffolding shall

(*a*) be securely fixed and anchored from the inside,
(*b*) have outriggers of adequate length and cross-section to ensure its solidity and stability, and
(*c*) be properly braced and supported

2 Only solid parts of the building shall be used as supports for scaffold parts

3 If working platforms rest on bearers let into the wall the bearers shall be efficiently braced, shall go right through the wall and shall be securely fastened on the far side

Regulation 10 Bracket Scaffolds

No figure or bracket scaffold supported or held by dogs or spikes driven into the wall shall be used unless the brackets are of suitable strength, are made of suitable metal, and securely anchored in the wall

Regulation 11 Heavy Suspended Scaffolds with Movable Platforms

1 Heavy suspended scaffolds shall comply with the provisions of this Regulation

2 Outriggers shall be

(*a*) of adequate strength and cross-section to ensure the solidity and stability of the scaffold,

2 Tout échafaudage, sauf lorsqu'il s'agit d'un échafaudage indépendant, doit être rigidement relié au bâtiment a des intervalles convenables dans le sens vertical et dans le sens horizontal

3 Lorsqu'il s'agit d'un échafaudage independant, au moins un tiers des boulins servant à supporter les plates-formes de travail situées a plus de 3 m 50 au-dessus du sol ou du plancher doivent demeurer en place jusqu'a ce que l'echafaudage soit definitivement enlevé et rester solidement attachés aux longerons ou aux montants suivant le cas

4 Toute charpente et tout dispositif servant de support aux plates-formes de travail doivent être de construction solide, avoir une bonne assise et être rendus stables au moyen d'entretoises ou de jambes de force appropriées.

5 Des briques detachées, des tuyaux de drainage, des mitres de cheminée ou autres materiaux non appropriés ne doivent jamais être utilisés pour supporter des échafaudages ou servir a leur construction

Règle 9 Echafaudages fixes en porte-a-faux ou en bascule

1 Les échafaudages en porte-à-faux ou en bascule doivent

a) être fixés et ancrés d'une maniere sûre à l'intérieur,
b) avoir des poutres de support d'une longueur et d'une section suffisantes pour assurer leur solidité et leur stabilite,
c) être convenablement entretoises et supportés

2 Seules les parties résistantes de la construction doivent être utilisées comme point d'appui des pièces d'échafaudage

3. Si les plates-formes de travail reposent sur des supports fixés dans le mur, ceux-ci doivent être suffisamment entretoises, traverser le mur de part en part et être fixes de manière sûre de l'autre côté

Règle 10 Echafaudages a consoles

Aucun échafaudage a consoles supporte ou tenu par des crampons ou des pitons fixés dans le mur ne doit être utilisé si les consoles ne sont pas d'une résistance suffisante, en metal d'une qualité appropriée et ancrées dans le mur de manière à offrir toute sécurité

Regle 11 Echafaudages lourds suspendus a plate-forme mobile

1 Les échafaudages lourds suspendus à plate-forme mobile doivent satisfaire aux prescriptions contenues dans la presente règle

2 Les poutres de support en porte-à-faux doivent être

a) d'une résistance et d'une section suffisantes pour assurer la solidité et la stabilite de l'echafaudage,

(*b*) installed at right angles to the building face, and

(*c*) carefully spaced to suit the putlogs or deck irons

3 The overhang of the outriggers from the building shall be such that the platform is fixed to hang not more than 10 cm from the building face

4 (1) The outriggers shall be securely anchored to the building by bolts or other equivalent means

(2) Anchor bolts shall be properly tightened and shall securely tie down the outrigger to the framework of the building

5 Counterweights (bags of cement, piles of bricks, etc) shall not be used as a means of securing the outriggers of such scaffolds

6 Stop bolts shall be placed at the end of each outrigger

7 The shackles serving to fasten the cables to the outriggers shall be placed directly over the drum centres of the movable platforms to get a straight lead The eye of the cable shall be placed in the centre of the bent shackle bolt

8 Suitable putlogs or deck irons shall be used to support the platforms and shall be suitably fastened so as to prevent slipping and to hold the machines The fish plates joining the deck irons shall be properly bolted

9 Cables or wire ropes used for suspension shall

(*a*) have at all times a safety factor of at least ten, based on the maximum load that the platform may be called upon to bear, and

(*b*) be of such length that at the lowest position of the platform there are at least two turns of rope on each drum

10 The scaffolding machines shall be so constructed that their moving parts are readily accessible for inspection

Regulation 12 Light Suspended Scaffolds with Movable Platforms

1 Light suspended scaffolds shall comply with the provisions of this Regulation

2 The outriggers shall be of adequate length and cross-section and be suitably installed and supported

b) placées perpendiculairement a la façade du bâtiment, et
c) convenablement espacees de maniere a correspondre aux boulins ou aux étriers de la plate-forme

3 Le porte-a-faux des poutres de support doit être tel que la plate-forme se trouve fixee a 10 cm au maximum de la façade du bâtiment

4. 1) Les poutres de support doivent être fixées au bâtiment par des boulons ou autres dispositifs equivalents

2) Les boulons de fixation doivent être convenablement serres et doivent relier d'une manière sûre les poutres de support a la charpente du bâtiment

5 Les contrepoids (sacs de ciment, briques empilées, etc) ne doivent pas être utilises comme moyens de fixation des poutres de support de ce type d'echafaudage

6 Des boulons d'arrêt doivent être places a l'extrémite de chaque poutre de support

7 Les brides de suspension servant a attacher les câbles aux poutres de support doivent être placees directement au-dessus des centres des tambours des treuils des plates-formes mobiles afin que toutes les suspensions soient verticales L'extremite du câble munie d'une cosse doit être placee a la partie centrale du boulon cintré de la bride de suspension

8 Des boulins ou des etriers appropries doivent être utilisés pour supporter les plates-formes, ils doivent être convenablement fixés de façon a eviter tout glissement et de maniere à supporter les treuils Les pièces de raccordement des etriers doivent être convenablement boulonnees

9 Les câbles utilisés pour les suspensions doivent

a) avoir a tout moment un coefficient de securite d'au moins dix (10) par rapport a la charge maximum que la plate-forme peut être appelee a supporter, et
b) avoir une longueur telle que pour la position la plus basse de la plate-forme il reste au moins deux tours de câble sur chaque tambour

10 Les treuils de ces échafaudages doivent être construits de telle manière que leur mecanisme soit facilement accessible pour être inspecte

Regle 12 Echafaudages légers suspendus a plate-forme mobile

1 Les echafaudages légers suspendus à plate-forme mobile doivent satisfaire aux prescriptions contenues dans la presente règle

2 Les poutres de support en porte-a-faux doivent être d'une longueur et d'une section suffisantes, elles doivent être convenablement installees et supportées

3 (1) The inside ends of the outriggers shall be firmly secured.

(2) When the outriggers have to be placed on a flat roof and bags of ballast are used, the bags shall be securely lashed to the outriggers

4 The maximum length of the platform shall be 8 m

5 The platform shall hang on at least three ropes which shall be not more than 3 m apart No intermediate rope shall at any time be tauter than either of the end ropes.

6 The pulley blocks shall be fastened to the platforms by stout iron bands which shall be properly secured, shall be continued round the sides and bottom of the platform, and shall have eyes in the iron to receive the ropes

7 Suspended scaffolds on which the workers sit to work shall be provided with devices to keep the platform at a distance of at least 30 cm from the wall and to prevent the workers from knocking their knees against the wall if the scaffold swings

Regulation 13 Other Suspended Scaffolds

1 A skip, large basket, boatswain's chair or similar equipment shall only be used as a suspended scaffold in exceptional circumstances for work of short duration, and under the supervision of a responsible person

2 When such equipment is used as a suspended scaffold

(*a*) it shall be supported by ropes having a safety factor of at least ten based on the total load including the dead weight, and

(*b*) the necessary precautions shall be taken to prevent the worker from falling out

3 When a skip or large basket is used as a suspended scaffold

(*a*) it shall be at least 75 cm deep, and

(*b*) it shall be carried by two strong iron bands which shall be properly fastened, shall be continued round the sides and bottom, and shall have eyes in the iron to receive the ropes

Regulation 14 Transport and Storage of Materials on Scaffolds Distribution of the Load

1 In transferring material on or to a scaffold, care shall be taken to handle gently so that no sudden shock is transmitted

3 1) Les extrémités intérieures des poutres de support doivent être solidement maintenues

2) S'il est nécessaire d'installer les poutres de support sur une terrasse et s'il est fait usage de sacs de lestage, ces derniers doivent être solidement amarrés auxdites poutres

4 La longueur de la plate-forme ne doit pas dépasser 8 m

5 La plate-forme doit être suspendue au moins par trois cordes dont l'espacement ne doit pas dépasser 3 m Aucune corde intermédiaire ne doit, à aucun moment, être plus tendue que les deux cordes extrêmes

6 Les palans doivent être attachés aux plates-formes au moyen de forts étriers en fer, lesquels doivent passer sous la plate-forme et sur les côtés, être fixés solidement et avoir des œillets pour le passage des cordes

7 Dans le cas de plates-formes suspendues sur lesquelles les ouvriers travaillent assis, des dispositifs doivent être prevus pour maintenir la plate-forme a une distance d'au moins 30 cm du mur et empêcher qu'en cas de balancement les ouvriers ne s'y heurtent les genoux

Regle 13 Autres echafaudages suspendus

1 Une benne, un grand panier, une sellette ou tout autre dispositif semblable ne doit être utilise comme échafaudage suspendu que dans des circonstances exceptionnelles pour un travail de courte durée et sous la surveillance d'une personne responsable

2 Lorsqu'un tel dispositif est utilisé comme échafaudage suspendu

a) il doit être supporté par des câbles ou des cordes ayant un coefficient de sécurité d'au moins dix (10) par rapport à la charge totale, y compris le poids mort, et

b) les précautions nécessaires doivent être prises pour que les ouvriers ne puissent tomber

3 Lorsqu'une benne ou un grand panier est utilise comme échafaudage suspendu

a) il doit avoir au moins 75 cm de profondeur, et

b) il doit être supporte par deux forts étriers en fer lesquels doivent passer sous la plate-forme et sur ses côtés, être fixés solidement et avoir des œillets pour le passage des cordes

Règle 14 Transport et entreposage de matériaux sur les échafaudages Répartition des charges

1 En transportant ou en déposant des matériaux sur un échafaudage, on doit veiller a ce que les opérations s'effectuent doucement afin que l'échafaudage ne subisse aucun choc brusque

2 The load on the scaffold shall be evenly distributed as far as is practicable and in any case shall be so distributed as to avoid any dangerous disturbance of the equilibrium

3 During the use of a scaffold care shall constantly be taken that it is not overloaded and that materials are not unnecessarily kept upon it

Regulation 15 Installation of Lifting Gear on Scaffolds

1 When lifting gear is to be used on a scaffold

(*a*) the parts of the scaffold shall be carefully inspected and, if need be, adequately strengthened,

(*b*) any movement of the putlogs shall be prevented, and

(*c*) if possible the uprights shall be rigidly connected to a solid part of the building at the place where the lifting gear is erected.

2 When the platform of the lifting gear does not move in guides a vertical hoarding shall be erected to the full height of the scaffolding to prevent loads from being caught in the scaffolding.

Regulation 16 Periodic Inspection of Scaffolds

Scaffolds shall be inspected by a competent person

(*a*) at least once a week, and

(*b*) after every spell of bad weather and every material interruption in the work

Regulation 17 Use of Scaffolds constructed by Other Contractors

Where a scaffold has not been erected by or under the superintendence of the employer whose workmen are to use it, the said employer

(*a*) shall, before allowing work to proceed on the scaffold, satisfy himself by personal inspection or by inspection by a competent person appointed by him

(i) that the scaffolding is in a stable condition;

(ii) that the materials used in its construction are sound; and

(iii) that the required safeguards are in position, and

2 Les charges sur les echafaudages doivent être reparties aussi uniformement que possible et, en tout cas, de maniere a ne pas provoquer un deséquilibre dangereux

3 Pendant toute la durée d'utilisation d'un échafaudage, on doit veiller constamment a ce qu'il ne soit pas surchargé et que des matériaux n'y soient pas deposes sans necessité

Regle 15 *Installation d'appareils de levage sur les echafaudages*

1 Lorsqu'un appareil de levage doit être installé sur un échafaudage

a) les parties constituantes de cet echafaudage doivent être inspectées soigneusement et, si necessaire, convenablement renforcees,
b) les boulins doivent être immobilisés, et
c) si possible, les montants doivent être attachés de façon rigide a une partie résistante du bâtiment à l'endroit ou l'appareil de levage doit être installe

2 Si la plate-forme de l'appareil de levage ne se deplace pas entre des guides, une cloison verticale doit être etablie sur toute la hauteur de l'échafaudage pour empêcher tout accrochage des charges a l'echafaudage

Regle 16 *Verification periodique des echafaudages*

Les échafaudages doivent être vérifiés par une personne compétente

a) au moins une fois par semaine, et
b) après toute période de mauvais temps et toute interruption considérable des travaux

Règle 17 *Utilisation d'echafaudages construits par d'autres entrepreneurs*

Lorsque des ouvriers doivent exécuter des travaux en utilisant un échafaudage qui n'a pas été construit par leur employeur ou sous sa direction, ledit employeur

a) doit s'assurer, avant de faire commercer le travail sur l'echafaudage, en faisant une inspection, lui-même ou en la faisant faire par une personne compétente désignée par lui
    i) que ledit échafaudage est stable,
    ii) que les matériaux utilisés pour sa construction sont en bon etat, et
    iii) que les dispositifs de sécurite prescrits sont en place, et

(*b*) shall see that the scaffold is kept in good condition for the whole period of the work that he carries out

Regulation 18 Working Platforms

1 Every working platform which is more than 2 m above the ground or floor shall be closely boarded or planked

2 The width of the platform shall be adequate having regard to the nature of the work and in no case less than

(*a*) 60 cm if the platform is used as a footing only and not for the deposit of any material;

(*b*) 80 cm if the platform is used for the deposit of material,

(*c*) 110 cm if the platform is used for the support of any higher platform,

(*d*) 130 cm if the platform is one upon which stone is dressed or roughly shaped,

(*e*) 150 cm if the platform is used for the support of any higher platform and is one upon which stone is dressed or roughly shaped

3 The maximum width of a platform supported on putlogs shall as a rule not exceed 160 cm

4 Every working platform shall, if part of a pole or gabbard scaffold, be at least 1 m below the top of the standards

5 Boards or planks which form part of a working platform or which are used as toe-boards shall

(*a*) be of a thickness which is such as to afford adequate security having regard to the distance between the putlogs but in no case less than 2 5 cm , and

(*b*) be of a width not less than 20 cm

6 No board or plank which forms part of a working platform shall project beyond its end support to a distance exceeding four times the thickness of the board or plank

7 Where boards or planks overlap one another precautions, such as the provision of bevelled pieces, shall be taken to reduce the risk of tripping to a minimum and to facilitate the movement of barrows

8 Every board or plank which forms part of a working platform shall rest on at least three supports, unless the distance between the putlogs and the thickness of the board or plank are such as to exclude all risk of tipping or undue sagging

9 Platforms shall be so made that the boards or planks cannot be accidentally displaced

b) doit veiller au maintien en bon etat de l'échafaudage pendant toute la duree des travaux qu'il fait exécuter

Règle 18 Plates-formes de travail

1. Toute plate-forme de travail située a plus de 2 m au-dessus du sol doit être munie d'un plancher jointif

2 La largeur des plates-formes doit être proportionnée a la nature du travail et en aucun cas elle ne doit être inférieure à

a) 60 cm si la plate-forme est utilisée uniquement pour supporter des personnes et non pour le depôt de matériaux,
b) 80 cm si elle est utilisee pour le depôt de matériaux,
c) 1 m 10 si elle est utilisée pour supporter une autre plate-forme plus elevée,
d) 1 m 30 si elle est utilisee pour le dressage ou le dégrossissage des pierres,
e) 1 m 50 si elle est utilisee a la fois pour supporter une autre plate-forme plus elevée et pour le dressage et le dégrossissage des pierres

3 La largeur maximum d'une plate-forme supportée par des boulins ne doit pas, en regle generale, depasser 1 m 60

4 Toute plate-forme de travail faisant partie d un echafaudage fixe a montants doit se trouver au moins a 1 m en dessous de l'extremite des montants

5 Les planches et madriers qui font partie d'une plate-forme de travail ou qui sont utilises comme plinthes doivent avoir

a) une epaisseur offrant toute sécurité eu egard à la distance entre deux boulins, épaisseur qui, en aucun cas, ne doit être inférieure a 2,5 cm , et
b) une largeur d'au moins 20 cm

6 Toute planche ou madrier faisant partie d'une plate-forme de travail ne doit pas depasser son support extrême d'une longueur excédant quatre fois l'épaisseur de ladite planche ou madrier

7 Si les planches ou les madriers se recouvrent, des précautions, telles que l'adjonction de pièces taillées en biseau, doivent être prises pour reduire au minimum le risque de trebuchement et pour faciliter le passage des brouettes

8 Les planches ou les madriers qui font partie d'une plate-forme de travail doivent être soutenus par trois supports au minimum, à moins que la distance entre deux boulins consecutifs et l'épaisseur des planches n'excluent tout risque de flexion exagérée ou de basculement

9 Les plates-formes doivent être construites de manière que les planches ou les madriers qui les composent ne puissent pas être déplacés accidentellement

10 Whenever possible a platform shall extend at least 60 cm beyond the end of the wall of the building

11 Every part of a working platform or working place from which a person is liable to fall a distance exceeding 2 m shall be provided

(*a*) with a suitable guard-rail which has a cross-section of at least 30 cm ² and is at 1 m above the platform or above any raised standing place on the platform, and

(*b*) with toe-boards which are of sufficient height to prevent the fall of materials and tools from the platform and in no case less than 20 cm high and are as close as possible to the platform so as to prevent the fall of materials and tools

12 Guard-rails, toe-boards and other safeguards used on a scaffold platform shall be maintained in position, except that they may be removed for the time and to the extent required to allow the access of persons or the transport or shifting of materials

13 The guard-rail and toe-boards used on a scaffold platform shall be placed on the inside of the uprights

14 The platforms of suspended scaffolds shall be provided with guard-rails and toe-boards on all sides, subject to the reservations that

(*a*) on the side facing the wall the guard-rail need not be at a height of more than 70 cm if the work does not allow of a greater height, and

(*b*) the guard-rail and toe-boards shall not be compulsory on the side facing the wall if the workers sit on the platform to work, but in such case the platform shall be provided with cables, ropes or chains affording the workers a firm handhold and capable of holding any worker who may slip

15 The space between the wall and the platform shall be as small as practically possible except where workmen sit on the platform during their work, in which case it shall not exceed 45 cm

Regulation 19 Gangways, Runs and Stairs

1 Every gangway or run any part of which is more than 2 m. above the ground or floor shall be

(*a*) closely boarded or planked, and

(*b*) at least 50 cm wide

2 The maximum slope of any gangway or run shall be 60 cm per metre

10 Les plates-formes doivent depasser l'angle des murs du bâtiment d'au moins 60 cm partout où cela est possible

11 Toutes les parties d'une plate-forme ou d'un emplacement de travail du haut duquel des personnes pourraient tomber d'une hauteur supérieure a 2 m doivent être pourvues

a) de garde-corps appropries d'au moins 30 cm² de section transversale, situes a 1 m au-dessus de la plate-forme ou de tout emplacement eleve installe sur ladite plate-forme et sur lequel on peut se tenir, et

b) de plinthes d'une hauteur suffisante pour empêcher tous matériaux ou outils de tomber de cette plate-forme, hauteur qui en aucun cas ne sera inférieure a 20 cm Ces plinthes doivent être fixées aussi près que possible de la plate-forme pour empêcher toute chute de matériaux ou d'outils

12 Les garde-corps, plinthes et autres dispositifs de protection doivent être maintenus en place, excepté pendant le temps et dans la mesure necessaires pour permettre l'accès des personnes, le transport ou le déplacement des matériaux

13 Les garde-corps et les plinthes d'une plate-forme d'echafaudage doivent être fixés sur le côte interieur des montants

14 Les plates-formes des échafaudages suspendus doivent être munies sur tous les côtés de garde-corps et de plinthes Toutefois

a) le garde-corps du côte du mur peut n'avoir que 70 cm de haut si le travail ne permet pas une hauteur plus grande, et

b) le garde-corps et la plinthe ne sont pas imposés, du côté du mur, si les ouvriers travaillent assis sur la plate-forme, mais, dans ce cas, la plate-forme doit être munie de câbles, cordes ou chaînes offrant au personnel des points d'accrochage solides et capables de retenir un ouvrier qui viendrait a glisser

15 L'espace entre le mur et la plate-forme doit être aussi faible que possible sauf lorsque les ouvriers travaillent assis sur la plate-forme Dans ce cas, l'ecartement entre le mur et la plate-forme ne doit pas depasser 45 cm

Règle 19 Passerelles, passages et escaliers

1 Toutes les passerelles ou passages dont une partie quelconque est situee a plus de 2 m au-dessus du sol ou du plancher doivent·

a) posseder un plancher jointif,

b) avoir au moins 50 cm de largeur

2 L'inclinaison maximum des passerelles ou des passages ne doit pas dépasser 60 cm par metre

3 Where the gangway or run is used for the passage of materials there shall be maintained a clear passageway which

(*a*) is adequate in width for the movement of the materials without removal of the guard-rails and toe-boards, and

(*b*) is not in any case of a width less than 65 cm

4 All planks forming a gangway or run shall be so fixed and supported as to prevent undue or unequal sagging

5 When the slope renders additional foothold necessary, and in every case where the slope is more than 25 cm per metre, there shall be proper stepping laths which shall

(*a*) be placed at suitable intervals, and

(*b*) be the full width of the gangway, except that they may be interrupted over a breadth of 10 cm to facilitate the movement of barrows

6 Stairs shall be provided with guard-rails throughout their length

7 Gangways, runs and stairs from which a person is liable to fall a distance exceeding 2 m shall be provided

(*a*) with suitable guard-rails which have a cross-section of at least 30 cm ^{2} and are at 1 m above the gangway, run or stair, and

(*b*) with toe-boards which are at least 20 cm high and are as close as possible to the gangway, run or stair so as to prevent the fall of materials and tools

Regulation 20 General Provisions concerning Platforms, Gangways, Runs and Stairs

1 Every platform, gangway, run or stairway shall be kept free from any unnecessary obstruction, rubbish, etc

2 Suitable precautions shall be taken to prevent any platform, gangway, run or stairway from becoming slippery

3 No part of a working platform, gangway or run shall be supported by loose bricks, drain pipes, chimney pots or other loose or unsuitable material

4. No working platform, gangway or run shall be supported by an eaves gutter, a balcony or its coping, a lightning-conductor or other unsuitable parts of a building

3 Lorsque les passerelles ou les passages sont utilisés pour le transport de materiaux, il doit être prévu un passage libre dont la largeur

a) soit suffisante pour que le transport des materiaux puisse se faire sans enlever les garde-corps et les plinthes, et

b) ne soit jamais inférieure a 65 cm

4 Toutes les planches qui font partie d'une passerelle ou d'un passage doivent être fixees et soutenues de manière a empêcher toute flexion exagérée ou inegale

5 Si l'inclinaison rend nécessaires des prises supplémentaires pour les pieds et dans tous les cas ou elle depasse 25 cm par mètre, des lattes appropriees formant marches

a) doivent être placees a des intervalles convenables, et

b) doivent s'etendre sur toute la largeur de la passerelle, toutefois, elles peuvent être interrompues sur une largeur de 10 cm afin de faciliter le passage des brouettes

6 Des garde-corps seront installes sur toute la longueur des escaliers

7 Les passerelles, les passages et les escaliers desquels des personnes pourraient tomber d'une hauteur superieure a 2 m doivent être munis

a) de garde-corps appropries d'au moins 30 cm^2 de section transversale, situes a 1 m au-dessus de la passerelle, du passage ou de l'escalier, et

b) de plinthes d'au moins 20 cm de haut, fixees aussi près que possible de la passerelle, du passage ou de l'escalier, de maniere a empêcher toute chute de materiaux ou d'outils

Regle 20 *Dispositions générales relatives aux plates-formes, passerelles, passages et escaliers*

1 Les plates-formes, passerelles, passages ou escaliers doivent toujours être maintenus libres de tout encombrement inutile, déchets, etc

2 Les mesures nécessaires doivent être prises pour empêcher que les plates-formes, les passerelles, les passages ou les escaliers deviennent glissants

3 Aucune partie d'une plate-forme de travail, d'une passerelle ou d'un passage ne doit être supportée par des briques détachees, des tuyaux de drainage, des mitres de cheminée ou autres materiaux detachés ou impropres à un tel usage

4 Aucune plate-forme de travail, aucune passerelle ni aucun passage ne doit être supporte par des gouttières, des balcons ou leur rebord, des fils de paratonnerre ou d'autres parties d'un bâtiment impropres a un tel usage

5 No working platform, gangway or run shall be used for working upon until its construction is completed according to these regulations and the prescribed safeguards properly fixed

Regulation 21 Trestle Scaffolds

1 There shall not be used any trestle scaffold which

(*a*) is of more than two tiers, or

(*b*) exceeds a height of 3 m from the ground or floor, or

(*c*) is erected on a suspended scaffold

2 The width of a trestle scaffold erected on a platform shall be such as to leave sufficient free space on the platform for the transport of materials

3 Trestles shall be firmly attached to the platform and braced so as to prevent displacement

Regulation 22 Ladders

1 Every ladder used as a means of communication shall rise at least 1 m above the highest point to be reached by any person using the ladder

2 Ladders shall not stand on loose bricks or other loose packing but shall have a level and firm footing

3 Every ladder

(*a*) shall be securely fixed so that it cannot move from its top or bottom points of rest, or

(*b*) if it cannot be secured at the top, shall be securely fastened at the base, or

(*c*) if fastening at the base is also impossible, shall have a man stationed at the foot to prevent slipping

4 The undue sagging of ladders shall be prevented

5 Ladders shall be equally and properly supported on each upright

6 Where ladders connect different floors

(*a*) the ladders shall be staggered,

(*b*) a protective landing with the smallest possible opening shall be provided at each floor, and

(*c*) such ladders shall not be used for the transport of loads exceeding 50 kg

5 Aucune plate-forme de travail, aucune passerelle ni aucun passage ne doit être utilisé pour y travailler avant que sa construction soit achevee et soit conforme aux presentes dispositions, et que les dispositifs de protection prescrits soient convenablement installés

Regle 21 Echafaudages sur tréteaux

1 Il ne doit pas être fait usage d'échafaudages sur tréteaux

a) ayant plus de deux rangées de treteaux superposées, ou
b) dont la hauteur depasse 3 m au-dessus du sol ou du plancher, ou
c) installes sur des echafaudages suspendus

2 La largeur des échafaudages sur tréteaux installes sur des plates-formes devra être telle qu'il reste un espace libre suffisant pour le transport des materiaux sur lesdites plates-formes

3 Les tréteaux doivent être solidement fixes a la plate-forme et entretoisés pour empêcher leur deplacement

Règle 22 Echelles

1 Toute échelle utilisee comme moyen de communication doit depasser de 1 m au moins l'emplacement le plus eleve devant être atteint par toute personne se servant de l'echelle

2 Les echelles ne doivent pas reposer sur des briques detachées ou autres matériaux en vrac, elles doivent avoir une assise plane et ferme

3 Toute échelle

a) doit être fixée d'une manière sûre de façon a ne pas se déplacer de ses points d'appui superieurs ou inférieurs, ou
b) si elle ne peut pas être immobilisee a sa partie superieure, elle doit être fixee d'une manière sûre par la base, ou
c) s'il est également impossible de la fixer a la base, un homme doit être poste au pied de l'échelle pour en empêcher le glissement

4 Tout fléchissement exagére des echelles doit être empêché

5 Toutes les échelles doivent s'appuyer également et convenablement sur chacun de leurs montants

6 Si des echelles sont utilisées pour relier différents etages

a) elles doivent être chevauchées,
b) un palier de protection avec passage reduit au minimum doit être établi à chaque étage,
c) ces echelles ne doivent pas être utilisées pour le transport de fardeaux depassant 50 kg

7 A ladder having a missing or defective rung shall not be used.

8 No ladder having any rung which depends for its support on nails, spikes or other similar fixing shall be used

9 (1) Wooden ladders shall be constructed with

(*a*) uprights of adequate strength made of wood free from defects and having the grain of the wood running lengthwise, and

(*b*) rungs made of wood free from defects and mortised into the uprights

(2) If the tenons are not secured by wedges, the ladders shall be reinforced by bolted metal cross-pieces

10 Roofers' and painters' ladders shall not be used by workmen in other trades

Regulation 23 Fencing of Openings

1 Every opening left in a floor of a building or in a working platform for an elevator-shaft or stairway, or for the hoisting of material, or for access by workmen or for any other purpose shall be provided

(*a*) with suitable guard-rails which have a cross-section of at least 30 cm ^{2} and are at 1 m above the floor or platform, and

(*b*) with toe-boards which are not less than 20 cm high and are as close as possible to the floor or platform so as to prevent the fall of materials and tools

2 Every opening in a wall which is less than 1 m from the floor or platform shall be provided

(*a*) with a suitable guard-rail which has a section of at least 30 cm ^{2} and is at 1 m above the floor or platform, and

(*b*) when necessary, with a toe-board which is not less than 20 cm high and as close as possible to the floor or platform or to the lower side of the opening, so as to prevent the fall of materials and tools

3 The fencing of openings shall, except in so far as its removal is permitted by the following paragraph, remain in position until it becomes necessary to remove it in order to complete the permanent enclosure

4 The fencing of openings may be removed for the time and to the extent required to allow the access of persons or the transport or shifting of materials

7 Une échelle à laquelle il manque un échelon ou ayant un echelon défectueux ne doit pas être utilisee

8 Aucune échelle dont un ou plusieurs échelons sont fixés par des clous, des crampons ou d'autres dispositifs de fixation analogues ne doit être utilisee

9 1) Les échelles en bois doivent être construites avec

a) des montants de resistance suffisante faits de bois a fil longitudinal et de bonne qualité, et

b) des echelons en bois sans défaut a tenons mortaises dans les montants

2) Lorsque les tenons ne sont pas immobilisés par des chevilles, les échelles doivent être consolidées par des entretoises a écrou

10 Les echelles de couvreurs et de peintres ne doivent pas être utilisées par les ouvriers des autres corps d'etat

Règle 23 Protection des ouvertures

1 Toute ouverture pratiquée dans un plancher de bâtiment ou dans une plate-forme de travail pour la cage d'un ascenseur ou d'un escalier, ou encore pour le passage de matériaux ou d'ouvriers, ou enfin pour tout autre but doit être pourvue

a) de garde-corps d'au moins 30 cm² de section transversale, situé a 1 m au-dessus de la plate-forme ou du plancher,

b) de plinthes d'au moins 20 cm de haut fixees aussi près que possible du plancher ou de la plate-forme pour empêcher toute chute de matériaux ou d'outils

2 Toute ouverture ménagée dans un mur et situee a moins de 1 m du plancher ou de la plate-forme doit être pourvue

a) d'un garde-corps d'au moins 30 cm² de section transversale situe a 1 m au-dessus de la plate-forme ou du plancher,

b) si nécessaire, d'une plinthe d'au moins 20 cm de haut, fixée aussi près que possible du plancher ou de la plate-forme ou du côté inférieur de l'ouverture pour empêcher toute chute de matériaux ou d'outils

3 Excepte dans les cas prévus par l'alinea 4 ci-apres, les dispositifs de protection des ouvertures doivent rester en place jusqu'a ce qu'il soit necessaire de les enlever pour proceder a la fermeture définitive de l'ouverture

4 Les dispositifs de protection des ouvertures peuvent être enlevés pendant le temps et dans la mesure necessaire pour permettre l'acces des personnes, le transport ou le deplacement des matériaux

5 When work is done on or over open joisting, the joisting shall be securely boarded over or other effective measures shall be taken to prevent falls of persons

Regulation 24 Roof Work

1 No person shall be employed on any roof on which, by reason of the pitch, the nature of the surface, or the state of the weather, there is a risk of falling, unless efficient precautions are taken to prevent the fall of persons or materials

2 On glass roofs, or roofs covered with fragile materials, special precautions shall be taken to prevent the workers from inadvertently stepping on them and to facilitate the safe carrying out of repairs

3 (1) Only experienced workmen who are physically and psychologically suitable shall be employed on extensive work on the outside of any roof which has a pitch of over 34° (2 3) or is slippery

(2) When persons are so employed

(*a*) whenever possible the following facilities shall be provided

(i) suitable guard-rails,

(ii) a suitable working platform, securely supported and of a width of not less than 40 cm , and

(iii) suitable, sufficient and properly secured ladders, duck ladders or crawling boards,

(*b*) whenever it is impossible to provide the facilities specified in sub-paragraph (*a*)

(i) safety belts with ropes enabling the wearers to lash themselves to a solid structure shall be supplied to the workers and used by them, and

(ii) if the safety rope cannot be fixed to a solid structure a second person shall be provided to hold the rope in a secure manner

Regulation 25 Miscellaneous Provisions

1 Any part of the premises where any person at work or passing is liable to be struck by materials, tools, or other articles falling more than 3 5 m shall be covered in such a manner as to protect such persons, unless other effective steps are taken to prevent falls of objects from such height

5 Lorsqu'un travail est effectue sur ou au-dessus d'un solivage non recouvert, les solives doivent être garnies d'un planchéiage offrant toute sécurite, ou d'autres mesures efficaces doivent être prises pour empêcher la chute des personnes

Règle 24 Travaux sur les toitures

1 Nul ne doit travailler sur un toit offrant des risques de chute à cause de son inclinaison, de la nature de sa surface ou des conditions atmosphériques, a moins que des precautions reellement efficaces ne soient prises pour empêcher toute chute de personnes ou de matériaux

2 Sur les toits vitrés ou couverts en materiaux offrant peu de résistance, des precautions spéciales doivent être prises pour empêcher les ouvriers de prendre appui par inadvertance sur les parties non resistantes de la toiture et pour permettre d'effectuer les reparations nécessaires sans danger

3 1) Seuls des ouvriers expérimentes et possédant les qualites physiques et psychologiques requises peuvent être employés pour des travaux de quelque importance sur les toits qui ont une pente supérieure a 34° (2/3) ou qui sont glissants

2) Lorsque des personnes sont employées a de tels travaux

a) autant que possible les installations suivantes doivent être prevues

i) garde-corps appropries,

ii) une plate-forme de travail convenable, supportee d'une manière sûre et ayant une largeur d'au moins 40 cm ,

iii) des echelles, échelles de couvreur ou planches de rampement appropriees et fixées d'une maniere sûre,

b) s'il est impossible de prevoir les installations indiquées dans l'alinea *a*)

i) des ceintures de sûrete avec cordes permettant aux ouvriers de s'attacher a un point solide de la construction doivent être mises a leur disposition et utilisées par eux, et

ii) si la corde de sûreté ne peut pas être attachee a un point solide de la construction, une deuxième personne doit être désignée pour tenir cette corde d'une maniere offrant toute sécurité

Règle 25 Prescriptions diverses

1 Tout emplacement où travaillent ou circulent des personnes qui pourraient être atteintes par des matériaux, des outils ou d'autres objets tombant d'une hauteur supérieure a 3 m 50, doit être couvert de maniere a protéger ces personnes, a moins que d'autres mesures efficaces soient prises pour empêcher toute chute d'objets de ladite hauteur

2 Scaffold materials, tools, or other objects shall not be thrown down, but be properly lowered

3 Safe means of access shall be provided to all working platforms and other working places

4 Every working-place and other place to which access is required for any person and every means of approach thereto shall be efficiently lighted

5 When necessary, special lighting shall be provided at all parts of scaffolds and structures along which material is hoisted

6 During all construction, repair, alteration, maintenance or demolition of buildings, all necessary precautions shall be taken to prevent the workers from coming into contact with electric wires or equipment, including low-tension wires and equipment

7 Protruding nails shall be knocked in or removed from all materials used in the construction of scaffolding or falsework

Part II: Hoisting Appliances

Regulation 26 General Provisions

1 Every part of the structure, working gear and anchoring and fixing appliances of every crane, crab and winch and of all other hoisting machines and tackle shall

(*a*) be of good mechanical construction, sound material and adequate strength and substance and free from defect,

(*b*) be kept in good repair and in good working order, and

(*c*) as far as the construction permits be examined in position at least once in every week by the driver or other competent person

2 Adequate steps shall be taken to ascertain the safe working load of every hoisting appliance

3 The maximum safe working load shall be plainly marked

(*a*) upon every crab, winch and pulley block used in the hoisting or lowering of any load,

(*b*) upon every derrick pole or mast used in the hoisting or lowering of any load weighing 1,000 kg or more, and

(*c*) upon every crane

4 In the case of a crane fitted with a derricking jib, the safe working load at various radii of the jib shall be plainly marked upon it

2 Des matériaux d'echafaudage, des outils ou d'autres objets ne doivent pas être jetés sur le sol mais soigneusement descendus

3 Toute plate-forme et tout autre emplacement de travail doivent être pourvus de moyens d'acces offrant toute sécurité

4 Tous les chantiers et autres emplacements ou des personnes doivent penetrer, ainsi que tous leurs accès, doivent être convenablement éclaires

5 Si nécessaire, un eclairage special doit être installe sur toutes les parties des échafaudages ou des constructions le long desquels des matériaux sont leves

6 Pendant tout travail de construction, de reparation, de transformation, d'entretien ou de demolition d'un bâtiment, les mesures necessaires doivent être prises afin d'éviter que les ouvriers entrent en contact avec des conduites ou des appareils electriques, même s'il s'agit de conduites ou d'appareils a basse tension

7 Les clous en saillie sur toute piece utilisee dans la construction des echafaudages ou des coffrages doivent être rabattus ou enleves

Titre II: Appareils de levage

Règle 26 Dispositions générales

1 Tous les eléments du bâti, du mecanisme et des dispositifs de fixation des grues, palans, treuils ou autres machines de levage et des moufles ou poulies doivent

a) être d'une bonne construction mecanique, fabriques avec des matériaux solides, de resistance et de matière appropriées et exempts de défectuosites,

b) être maintenus en bon etat et en bon ordre de marche, et

c) dans la mesure ou la construction le permet, être examines sur place au moins une fois par semaine, par le conducteur ou par une autre personne competente

2 Des mesures appropriées doivent être prises pour déterminer, pour chaque appareil de levage, la charge utile maximum admissible

3 La charge utile maximum admissible doit être marquee clairement

a) sur chaque palan, treuil ou moufle employés pour le levage ou la descente de toute charge,

b) sur chaque poteau ou mât de derrick employe pour le levage ou la descente de charges pesant 1 000 kg ou plus, et

c) sur chaque grue

4 Sur les grues a flèche inclinable, les charges utiles admissibles aux divers angles d'inclinaison de la flèche seront clairement marquees

5 A crane, crab, winch or any other hoisting appliance, or any part of such appliance, shall not, except as permitted by the following paragraph, be loaded beyond the safe working load

6 For the purpose of making tests of a crane or other hoisting appliance or gear the safe working load may be exceeded by such amount as the competent person appointed to carry out the tests may authorise

7. During hoisting operations effective precautions shall be taken to prevent any person from standing or passing under the load

8 No load shall be left suspended from a hoisting appliance unless there is a competent person actually in charge while the load is so suspended

9 Every crane driver or hoisting appliance operator shall be properly qualified

10 No person under eighteen years of age shall be employed to handle hoisting appliances or to give signals to the operator

11 Under normal working conditions one person only shall be appointed as being responsible for the giving of all signals to the crane driver

12 When any hoisting or lowering is performed by means of a crane and the crane driver or person operating the crane is unable to see the load in all its positions, one or more look-out or signal men shall be stationed so as to see the load throughout its travel and give the necessary signals to the crane driver or person operating the crane

13 (1) For each operation to be performed there shall be a distinctive signal of such a character that the person to whom it is given shall be able to hear or see it easily,

(2) Where a sound, colour or light signal is used, it shall be made by an efficient device, and

(3) Every signal wire shall be adequately protected from accidental interference

14 Motors, gearing, transmissions, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards If the safeguards have to be removed, they shall be replaced as soon as possible by the persons removing them

15 The driver of every crane or similar hoisting appliance shall be provided with a safe and covered stand, cab or cabin

16 (1) Where reasonably practicable the driver's cab on every crane or other similar hoisting appliance shall, before the

5 Une grue, un palan, un treuil, tout autre appareil de levage ou toute partie desdits appareils ne doit pas être charge au dela de la charge utile admissible, excepte dans les cas prevus par le paragraphe suivant

6 Afin de proceder aux epreuves d'une grue ou de tout autre appareil ou mécanisme de levage, la charge utile admissible peut être depassée dans la mesure où la personne competente nommée pour proceder aux epreuves pourra l'autoriser

7 Lors des operations de levage, des mesures efficaces doivent être prises pour que personne ne puisse stationner ni circuler sous la charge

8 Aucune charge ne doit rester suspendue à un appareil de levage si la marche de cet appareil n'est pas sous le contrôle effectif d'une personne competente pendant que la charge reste ainsi suspendue

9 Tout conducteur de grue ou d'autres engins de levage doit être dûment qualifié

10 Aucune personne de moins de 18 ans ne doit être employee pour manœuvrer un appareil de levage ou donner des signaux au conducteur

11 Dans des conditions de travail normales, une seule personne responsable doit être designée pour donner au conducteur de la grue tous les signaux necessaires

12 Lorsqu'une operation de levage ou de descente de materiaux est effectuée au moyen d'une grue et que le conducteur de la grue ou la personne manœuvrant celle-ci n'est pas en mesure de voir la charge dans toutes ses positions, un ou plusieurs observateurs ou signalisateurs doivent être postés de maniere a voir la charge pendant tout son parcours et à donner les signaux necessaires au conducteur de la grue ou a la personne manœuvrant celle-ci

13 1) Pour chaque manœuvre a effectuer, il doit y avoir un signal bien défini et tel que la personne a laquelle il s'adresse puisse l'entendre ou le voir facilement

2) Si le signal est sonore ou lumineux, il doit être produit par un dispositif efficace, et

3) Tout fil servant a transmettre un signal doit être suffisamment protége contre tout contact accidentel

14 Les moteurs, engrenages, transmissions, conducteurs électriques et autres parties dangereuses des appareils de levage doivent être munis de dispositifs de protection efficaces Si les dispositifs de protection ont dû être enleves, ils doivent être remis en place aussitôt que possible par les personnes qui les ont enlevés

15 Le conducteur de toute grue ou appareil de levage semblable doit avoir une cabine ou un poste de commande couvert et offrant toute securité

16 1) Lorsque cela est pratiquement realisable, la cabine du conducteur de toute grue ou appareil de levage semblable doit être

crane or other hoisting appliance is put into general use, be completely erected, or other adequate provision made for the protection of the driver from the weather

(2) During cold weather the cabin of every power-driven crane or other hoisting appliance in use shall be adequately heated by suitable means

Regulation 27 Winches, Crabs and Pulleys

1 Every part of the framework of every crab or winch, including the bearers, shall be of metal

2 When wire ropes are used, the diameter of the pulleys or drums shall not be less than 400 times the diameter of the wires in the rope excluding the core of the rope

3 When winch drums are grooved, the grooves shall be such that the different turns of rope are not squeezed together

4 Winch drums shall be provided with flanges that prevent the rope from slipping off the drum

5 Every crane, crab and winch shall be provided with an efficient brake or brakes and with any other safety device required to prevent the fall of the load when suspended

6 On every crab or winch the control lever shall be provided with a suitable locking device

7 On steam-driven lifting engines the lever controlling the link motion reversing gear shall be provided with a suitable spring-lock arrangement

Regulation 28 Suspension and Attachment

1 All cables or ropes used on hoisting appliances for raising or lowering materials shall be long enough to leave at least two turns on the drum at every operating position of the appliance

2 No rope shall be used over a grooved drum or pulley if its diameter exceeds the pitch of the drum grooves or the width of the pulley groove

3 Wire ropes shall be such as to have a safety factor of eight under the maximum load In calculating the dimensions of wire ropes the ropes shall be assumed to be under tensile stress only.

4 No chain or wire rope which has a knot tied in it shall be used for raising or lowering any load

5 Every hoisting or derricking rope or chain shall be securely fastened to the barrel of the crane, crab or winch with which it is used

complètement montee avant que la grue ou l'appareil soit mis en service régulier, sinon d'autres dispositions appropriées seront prises pour protéger le conducteur contre les intempéries

2) Par temps froid, la cabine de toute grue ou de tout autre appareil de levage actionne mécaniquement et en service doit être convenablement chauffée par des moyens appropriés

Règle 27 Treuils, palans et poulies

1 Tous les éléments du bâti de chaque palan ou treuil, y compris les supports, doivent être en metal

2 Lorsqu'il est fait usage de câbles metalliques, le diamètre des poulies ou des tambours ne doit pas être inferieur a 400 fois le diametre des fils composant le câble . Dans cette evaluation, l'âme du câble ne doit pas entrer en ligne de compte

3 Si les tambours des treuils sont munis de rainures, celles-ci doivent être disposees de maniere que les differents tours du câble ne se serrent pas les uns contre les autres

4 Les tambours des treuils doivent être munis de flasques latéraux empêchant les câbles de glisser hors des tambours

5 Chaque grue, palan ou treuil doit être muni d'un ou de plusieurs freins efficaces et de tout autre dispositif de securité necessaire pour éviter la chute des charges suspendues

6 Le levier de commande de tout treuil et de tout palan doit être muni d'un dispositif de verrouillage approprié

7 Le levier de commande du mécanisme de renversement de marche de tout engin de levage à vapeur sera muni d'un dispositif de verrouillage à ressort

Règle 28 Moyens de suspension et d'attache

1 Tous les câbles ou cordes utilisés sur les appareils de levage pour la levée ou la descente des materiaux doivent avoir une longueur suffisante pour qu'il en reste au moins deux tours sur le tambour dans toutes les positions de travail de l'appareil

2 Aucun câble ne sera utilisé sur un tambour a rainures ou sur une poulie a gorge si son diamètre est superieur au pas des rainures du tambour ou de la largeur de la gorge de la poulie

3 Les câbles métalliques doivent être calcules de manière a présenter un coefficient de sécurité de huit (8) au moins sous la charge maximum Dans le calcul de dimension des câbles, on ne suppose ceux-ci soumis qu'à la traction

4 Aucune chaîne ni câble metallique présentant un nœud ne doit être utilisé pour lever ou descendre une charge

5 Tous les câbles et chaînes de levage, y compris les câbles et chaînes servant à la suspension des flèches à inclinaison réglable des grues-derrick, doivent être fixés d'une manière sûre aux tambours des grues, palans ou treuils avec lesquels ils sont utilisés.

6 Each temporary attachment or connection of a rope, chain or other appliance used in the erection or dismantling of a crane shall be adequate and secure

7 Every rope used in hoisting or lowering or as a means of suspension shall be of suitable quality and adequate strength and free from defect

8 Every chain, ring, hook, shackle, swivel and pulley block used for hoisting or lowering or as a means of suspension shall have been tested and be marked in plain figures and letters with the safe working load and an identification mark

9 No gear used for attachment or as a means of suspension shall be loaded beyond its safe working load, except for the purpose of making tests

10 Every chain, ring, hook, shackle and swivel used in hoisting or lowering or as a means of suspension which has been lengthened, altered or repaired by welding shall be adequately tested and examined before being again taken into use

11 Every hook used for hoisting or lowering shall either

(*a*) be provided with an efficient catch to prevent the displacement of the sling or load from the hook, or

(*b*) be of such shape as to reduce as far as possible the risk of such displacement

12 The parts of hooks liable to come into contact with ropes or chains during the raising or lowering of loads shall be rounded

13 Where double or multiple slings are used for hoisting or lowering purposes the upper ends of the slings shall be connected by means of a shackle or ring and not be put separately into a lifting hook

14 When bulky objects are being raised or lowered the maximum safe load of slings shall be determined with reference not only to their strength but also to the angle of the legs

15 Sharp edges of a load shall not be in contact with slings, ropes or chains

16 The chains, ropes and slings of hoisting appliances shall be periodically examined by a specially competent person acting for the inspection authority and this person's findings shall be entered on a certificate or in a special register

Regulation 29 Cranes

1 The stage for every crane shall be built of sound material and be of good mechanical construction having regard to its height

6 Toute attache ou jonction provisoire d'un câble, d'une chaîne ou d'un autre dispositif utilise dans le montage ou le demontage d'une grue doit être approprie a son but et presenter toute sécurite

7 Tout câble utilise pour le levage ou la descente des materiaux ou bien comme moyen de suspension doit être de qualite appropriée, suffisamment resistant et sans défaut

8 Chaque chaîne, anneau, crochet, boucle, émerillon ou palan utilisé pour le levage ou la descente des matériaux ou bien comme moyen de suspension doit avoir éte éprouve et doit porter en chiffres et lettres nets l'indication de la charge utile admissible et une marque d'identification

9 Aucun dispositif d'attache ou de suspension ne doit être chargé au dela de sa charge utile admissible, sauf lorsqu'il s'agit de procéder à des essais

10 Les chaînes, anneaux, crochets, boucles ou émerillons utilisés pour le levage ou pour la descente des materiaux ou bien comme moyen de suspension qui ont éte allonges, modifiés ou réparés par soudure doivent être convenablement essayes et vérifies avant d'être remis en service

11 Tout crochet utilise pour le levage ou la descente de matériaux doit être ou bien

a) pourvu d'un cliquet efficace pour empêcher que l'elingue ou la charge ne se déplace sur le crochet, ou

b) avoir une forme reduisant le plus possible le risque d'un tel déplacement

12 Les parties des crochets pouvant entrer en contact avec les câbles, cordes ou chaînes pendant le levage ou la descente des charges doivent être arrondies

13 Lorsque des élingues doubles ou multiples sont utilisées pour le levage ou la descente de materiaux, les extrémites supérieures des elingues doivent être réunies au moyen d'un anneau ou d'une boucle et non pas engagées séparement dans le crochet de levage

14 Lors de la levée ou la descente de gros objets, la charge utile admissible des élingues doit être déterminee non seulement en fonction de leur résistance, mais aussi en fonction de l'inclinaison des brins

15 Aucune élingue, corde ou chaîne ne doit entrer en contact avec les angles vifs des charges

16 Les chaînes, câbles et élingues des appareils de levage doivent être vérifies périodiquement par une personne particulierement compétente agissant pour l'autorité d'inspection Les constatations faites doivent être mentionnées dans un certificat ou inscrites dans un registre spécial

Règle 29 Grues

1 La plate-forme portant la grue doit être bâtie avec des matériaux solides et avoir une bonne construction mecanique eu égard

and position and to the lifting and reaching capacity of the crane

2 The platform of every crane shall

(*a*) be close-planked or plated;
(*b*) be securely fenced according to regulation,
(*c*) be provided with safe means of access, and
(*d*) be of sufficient area

(i) in all cases, for the driver or operator and signalman, and

(ii) in the case of a guy derrick crane, also for the operator of the slewing mechanism

3 (1) Every fixed crane shall either be securely anchored or be adequately weighted by suitable ballast firmly secured to ensure stability

(2) When a crane is weighted by ballast a diagram showing the position and size of the counterweights shall be posted up in the driver's cab

(3) Every travelling crane shall be provided with a device for anchoring it to the rails of the crane track

4 On every stage, gantry or other place on which a crane moves there shall in so far as practicable be maintained at every position of the crane an unobstructed passageway of a width of at least 60 cm between the moving parts of the crane and the fixed parts or edge of such stage, gantry or place

5 If at any time it is impracticable to maintain a passageway of a width of at least 60 cm at any place or point, all reasonable steps shall be taken to prevent the access of any person to such place or point at such time

6 All rails on which a travelling crane moves shall be of adequate section and have an even running surface

7 The following requirements shall apply to every track of a travelling crane, whether resting on the ground or raised above the ground

(*a*) the whole track shall be properly laid,
(*b*) any supports shall be of sufficient strength and be maintained in good condition, and
(*c*) the ends of the track shall be provided with shoes or buffers

8 All rails on which a travelling crane moves shall, unless other adequate steps are taken to ensure the proper junction of

à sa hauteur, a sa position, à la capacite de levage et a la portee de la grue

2 La plate-forme de toute grue doit être·

a) pourvue d'un plancher jointif en bois ou en tôle,
b) convenablement protégée conformement au reglement,
c) pourvue de moyens d'accès sûrs, et
d) avoir une surface suffisante

i) dans tous les cas, pour le conducteur ou l'operateur et la personne chargée de faire les signaux, et
ii) dans le cas d'une grue-derrick a haubans, aussi pour la personne manœuvrant le mécanisme de rotation

3 1) Toute grue fixe doit être ancrée d'une maniere sûre, ou convenablement lestée, en vue d'assurer sa stabilité, au moyen d'une charge suffisante et solidement attachée

2) Lorsqu'une grue est lestée au moyen d'une charge, un diagramme indiquant la position et la grandeur du contrepoids doit être affiché dans la cabine de manœuvre de la grue

3) Toute grue mobile doit être pourvue d'un dispositif d'ancrage aux rails de la voie de roulement

4 Sur toute plate-forme, echafaudage ou autre emplacement sur lequel se meut une grue, il doit être prevu un passage qui doit rester libre, autant que possible, pour chaque position de la grue et qui aura au moins une largeur de 60 cm entre les parties mobiles de la grue et les parties fixes ou le bord de ladite plate-forme, dudit échafaudage ou emplacement

5 Si a un moment quelconque pendant la translation ou la giration il est impossible de maintenir en un endroit ou un point quelconque un passage libre d'une largeur d'au moins 60 cm , toutes les mesures necessaires doivent être prises pour empêcher l'accès des personnes audit endroit ou point pendant ce temps

6 Tous les rails sur lesquels se meut une grue mobile doivent avoir une section suffisante et une surface de roulement unie

7. Les dispositions suivantes s'appliquent a toutes les voies d'une grue mobile reposant sur le sol ou non

a) la voie doit être convenablement posee,
b) tous les supports doivent être suffisamment resistants et maintenus en bon état, et
c) les extrémités des voies doivent être munies de sabots ou de butoirs

8 A moins que d'autres mesures soient prises pour assurer la jonction des rails et pour empêcher toute variation sensible de leur

and to prevent any material alteration in the gauge of the rails

(*a*) be jointed by fish plates or double chairs, and
(*b*) be securely fastened to sleepers

9 The track and turntable of every travelling crane shall be installed with the greatest care and in conformity with sound technical principles

Regulation 30 Examination of Cranes Certificates

1 No crane shall be used unless it has been tested and examined by a competent person acting for the inspection authority and there has been obtained from the person who made the test and examination a certificate thereof specifying the safe working load at various radii of the jib, including the maximum radius at which the jib can be worked

2 The safe working load at any radius specified in the certificate

(*a*) shall not be more than 80 per cent of the maximum load which the crane has stood at that radius during the application of the test, and
(*b*) shall not be greater than the working load indicated by the maker or on the preceding certificate of inspection

3 The examination and tests required by this Regulation shall be repeated

(*a*) at such regular intervals as are prescribed by the competent authority, and
(*b*) after all substantial alterations or repairs to the crane

Regulation 31 Derrick Cranes

1 The maximum radius at which the jib may be worked shall be clearly indicated on every derrick crane

2 When the jib is at the maximum radius there shall not be less than two dead turns of rope on the derricking drum

3 The jib of a Scotch derrick crane shall not be erected between the back stays of the crane

4 Every crane having a derricking jib shall be provided with an effective interlocking arrangement between the derricking clutch and the pawl sustaining the derricking drum, except where

(*a*) the hoisting drum and the derricking drum are independently driven, or

ecartement, tous les rails sur lesquels se meut une grue mobile doivent

a) être reunis au moyen d'eclisses ou de doubles coussinets, et

b) être fixes d'une manière sûre aux traverses

9 Le chemin de roulement et la couronne de giration de toute grue mobile doivent être installés avec le plus grand soin et conformément aux regles d'une bonne construction

Règle 30 Epreuve et examen des grues Certificats

1 Aucune grue ne doit être utilisee si elle n'a pas été eprouvée et examinée par une personne competente agissant pour l'autorite d'inspection et si un certificat desdits examens et épreuves, dans la forme prescrite, spécifiant les charges utiles admissibles aux differents angles d'inclinaison de la fleche, y compris l'angle d'inclinaison maximum auquel la flèche peut être utilisee, n'a pas eté délivré par la personne ayant procedé aux épreuves et examens

2 La charge utile admissible specifiee, pour chaque angle d'inclinaison, dans le certificat

a) ne doit pas depasser 80 pour cent de la charge maximum que la grue a supportee audit angle pendant la duree de l'epreuve, et

b) ne doit pas être superieure a la charge maximum indiquée par le constructeur ou par le precédent certificat d'inspection

3 Les examens et epreuves exiges par la presente regle doivent être repetes

a) à des intervalles reguliers, déterminés par l'autorite competente, et

b) apres chaque modification ou reparation importante de la grue

Règle 31 Grues-derrick

1 L'angle d'inclinaison maximum auquel la fleche d'une grue-derrick peut être utilisée doit être clairement indique sur la grue

2 Lorsque la flèche se trouve a son angle d'inclinaison maximum, il doit rester au moins deux tours de câble en reserve sur le tambour servant au réglage de l'inclinaison de la flèche

3 La flèche d'une grue-derrick ecossaise ne doit pas être placée entre les contre-étais de la grue

4 Toute grue ayant une flèche à inclinaison reglable doit être munie d'un dispositif de verrouillage efficace entre l'embrayage du tambour de relèvement de la fleche et le cliquet d'arrêt de ce tambour, à moins

a) que le tambour de levage et le tambour de relèvement de la flèche ne soient actionnes indépendamment, ou

(*b*) the mechanism driving the derricking drum is self-locking

5 Where the guys of a guy derrick crane cannot be fixed at approximately equal spacing, such other measures shall be taken as will ensure the safety of the crane

6 The whole of the appliances for the anchorage of a crane shall be examined on each occasion before the crane is erected

7 The erection of cranes shall be supervised by a competent person

8 Each crane shall after each erection on a building site and before use be tested *in situ* for anchorage by a competent person, acting for the inspection authority

9 Cranes shall be tested for anchorage by the imposition on each anchorage of the maximum uplift or pull exerted either

(*a*) by a load of 25 per cent above the maximum load to be lifted by the crane as erected, or

(*b*) by a less load arranged to exert an equivalent pull on the anchorage

10 If the maximum load which the person making such test or examination considers may safely be lifted by that crane as anchored is less than the safe working load of the crane when properly anchored, a loading diagram appropriate to the crane anchorage shall be affixed in a position where it can readily be seen by the crane driver

Regulation 32 Automatic Safe Load Indicators

1 No jib crane whether having a fixed jib or a derricking jib shall be used unless it is fitted with an automatic indicator which

(*a*) indicates clearly to the driver or person operating the crane when the load being moved approaches the safe working load of the crane at any inclination of the jib; and

(*b*) gives an efficient sound signal when the load being moved is in excess of the safe working load of the crane at any inclination of the jib

2. The preceding paragraph does not apply to

(*a*) any guy derrick crane.

b) que le mecanisme actionnant le tambour de relèvement de la fleche ne soit à verrouillage automatique

5 Lorsque les haubans d'une grue-derrick ne peuvent pas être fixés a une distance approximativement égale les uns des autres, d'autres dispositions doivent être prises pour garantir la securité de la grue

6 Tous les dispositifs d'ancrage d'une grue doivent être examinés avant chaque installation

7 Le montage de toute grue doit être surveille par une personne compétente

8 Après chaque installation sur un chantier de bâtiment et avant d'être mise en service, chaque grue doit être éprouvée, a l'endroit même de son utilisation, par une personne competente agissant pour l'autorité d'inspection

9 L'ancrage des grues doit être eprouve en soumettant chacun des ancrages à la force maximum d'arrachement ou de traction produite, soit

a) par une charge dépassant de 25 pour cent la charge maximum à lever au moyen de la grue telle qu'elle est installee, soit
b) par une charge moindre disposée de manière a exercer un effort de traction equivalent sur l'ancrage

10 Si la charge maximum, considérée par la personne procédant à ladite épreuve comme susceptible d'être levee avec securité par la grue telle qu'elle est ancrée, est plus faible que la charge utile admissible pour la grue parfaitement ancrée, un diagramme de chargement correspondant à l'ancrage actuel de la grue doit être appose en un endroit où il puisse être aisement vu par le conducteur de la grue

Règle 32 Indicateurs automatiques de charge

1 Aucune grue à flèche reglable ou non, ne doit être employée si elle n'est pas pourvue d'un indicateur automatique qui

a) pour toute inclinaison de la flèche, indique clairement au conducteur ou à la personne manœuvrant la grue si la charge que l'on deplace se rapproche de la charge utile admissible de la grue, et
b) émette un signal sonore spécial et facilement perceptible lorsque la charge que l'on déplace excède la charge utile admissible de la grue correspondant a une inclinaison donnée de la flèche

2 Les prescriptions du paragraphe precédent ne s'appliquent pas

a) aux grues-derrick a haubans,

(*b*) any hand crane which is being used solely for erecting or dismantling another crane, or

(*c*) any crane having a maximum safe working load of 1,000 kg or less,

but in all such cases a table showing the safe working loads at various radii of the jib shall be kept attached to the crane

Regulation 33 Various Rules concerning Crane Operation

1 (1) A crane shall not be used otherwise than for direct lifting or lowering of a load unless its stability is not thereby endangered

(2) No load which lies in the angle between the back-stays of a Scotch derrick crane shall be moved by that crane

2 Where more than one crane or winch is required to lift or lower one load

(*a*) the machinery, plant and appliances used shall be so arranged and fixed that no such crane or winch shall at any time be loaded beyond its safe working load or be rendered unstable in the hoisting or lowering of the load, and

(*b*) a person shall be specially appointed to co-ordinate the operation of the appliances working together

3 When a load is thought to approach the maximum safe working load a trial shall be made by raising the load a short distance to ensure that the hoisting appliance can carry it safely.

Regulation 34 Hoists

1 Hoists (i e lifting appliances provided with a cage or platform that runs in guides) used for raising and lowering materials shall satisfy the requirements of this Regulation

2 (1) Hoist shafts shall be provided with solid walls

(*a*) at the ground level, on all sides, and

(*b*) on scaffold platforms, on the side towards the platform

(2) The walls of hoist shafts, except at approaches, shall extend at least 2 m above the floor or platform

b) aux grues à main employees uniquement pour le montage et le démontage d'une autre grue, ou

c) aux grues dont la charge maximum admissible ne depasse pas 4 000 kg ,

toutefois, dans tous les cas, un tableau indiquant les charges utiles admissibles aux divers angles d'inclinaison de la fleche doit être fixé à la grue

Regle 33 Prescriptions diverses relatives a l'utilisation des grues

1. 1) Aucune grue ne doit être employée autrement que pour le levage ou la descente directe d'une charge, à moins que sa stabilite n'en soit pas affectée

2) Aucune charge se trouvant dans l'angle entre les contre-etais d'une grue-derrick ecossaise ne doit être déplacee par ladite grue

2 Lorsque pour lever ou descendre une charge il est necessaire d'employer plus d'une grue ou d'un treuil

a) les machines, installations et appareils employés doivent être disposes et fixés de façon qu'a aucun moment ces grues ou treuils ne soient charges au dela de leur charge utile admissible ou rendus instables par le levage ou la descente de la charge, et

b) un préposé doit être spécialement désigne pour veiller a la concordance des manœuvres des appareils de levage ainsi conjugués

3 Lorsqu'une charge est présumee atteindre la charge utile maximum admissible, on doit faire preceder le levage de cette charge d'un essai en la soulevant a une petite hauteur pour s'assurer que l'appareil de levage employe est capable de la supporter en toute sécurité

Règle 34 Monte-charge

1 Les monte-charge (c'est-à-dire les engins de levage munis d'une cabine ou d'un plateau qui se deplace entre des guides) servant au levage et à la descente de materiaux, doivent satisfaire aux prescriptions contenues dans la presente règle

2 1) Les puits des monte-charge doivent être munis de parois de protection pleines

a) au niveau du sol, de tous les côtes,

b) au niveau de chaque plate-forme d'echafaudage du côté de la plate-forme

2) Lesdites parois doivent avoir une hauteur d'au moins 2 m au-dessus du sol ou de la plate-forme, excepté aux accès du puits

3 Approaches to hoists shall be provided with solid gates which

(*a*) are at least 1 m high, and

(*b*) close automatically when the hoist platform leaves the landing

4 Approaches to hoists shall be adequately lighted

5 The guides of hoist platforms shall offer sufficient resistance to bending and, in the case of jamming by a safety catch, to buckling

6 The platform shall be so constructed that safe transport is ensured.

7 On platforms for truck transport the trucks shall be efficiently blocked in a safe position on the platform

8 The platform shall be provided with a safety catch that prevents it from falling if the rope or a part of the suspension gear breaks

9 Counterweights consisting of an assemblage of several parts shall be made of specially constructed parts rigidly connected together

10 The counterweight shall run in guides

11 If two or more wire ropes are used the load shall be equally distributed between them

12 Each suspension rope shall be in one piece

13 The rope ends shall be fastened to the platform attachment by splicing and tight binding with steel wire, by sealing, or by clamping with the aid of rope clamps, wherever possible, thimbles shall be used

14 Ropes shall be attached to the drum by being passed through the drum and fastened inside or by some equivalent method

15 Ropes shall be long enough to leave at least two turns on the drum when the cage or platform is at its lowest position, and be of such diameter as to have a safety factor of at least eight under the maximum load

16 When wire ropes are used, the diameter of the pulleys or drums shall not be less than 400 times the diameter of the wires in the rope

17 When winch drums are grooved, the grooves shall be such that the different turns of rope are not squeezed together

3 Les accès aux monte-charge doivent être munis de portes pleines

a) ayant une hauteur d'au moins 1 m ; et
b) se fermant automatiquement lorsque le plateau du monte-charge quitte le niveau correspondant

4 Les accès aux monte-charge doivent être convenablement eclairés

5 Les guides des plateaux de monte-charge doivent être suffisamment rigides pour ne pas fléchir et doivent offrir une resistance suffisante au flambage en cas de blocage éventuel du plateau par un parachute

6. Le plateau doit être construit de manière a offrir toute sécurite pour le transport.

7 Les wagonnets doivent être immobilisés d'une manière efficace dans une position offrant toute sécurité sur les plateaux qui servent à les transporter

8 Le plateau du monte-charge doit être muni d'un parachute capable, en cas de rupture du câble ou d'une pièce de suspension, d'arrêter la chute du plateau

9 Les contrepoids formes de plusieurs éléments doivent être construits au moyen de pièces spécialement destinées à cet usage et assemblées d'une maniere sûre les unes aux autres

10 Le contrepoids doit se déplacer entre des guides

11 Lorsqu'il est fait usage de deux ou de plusieurs câbles de suspension, la charge doit être repartie également entre ceux-ci

12 Chaque câble de suspension doit être d'une seule pièce

13 Les extrémités des câbles de suspension doivent être fixées à l'attache du plateau par une epissure avec ligature solide en fils d'acier, par des pattes coulées ou par serrage au moyen de pince-câbles, dans la mesure du possible, il doit être fait usage de cosses à câbles

14 La fixation du câble sur le tambour doit se faire en passant le câble à travers le tambour et en l'attachant solidement a l'intérieur de ce dernier ou par toute autre methode équivalente.

15 Tous les câbles ou cordes doivent avoir une longueur suffisante pour qu'il en reste au moins deux tours sur le tambour lorsque la cabine ou le plateau se trouve a son point inférieur, et doivent être calculés de manière à presenter un coefficient de sécurité de 8 au moins sous la charge maximum

16 Lorsqu'il est fait usage de câbles métalliques, le diamètre des poulies ou des tambours ne doit pas être inférieur a 400 fois le diametre des fils composant le câble

17 Si les tambours sont munis de rainures, celles-ci doivent être disposées de manière que les différents tours du câble ne se serrent pas les uns contre les autres

18 Winch drums shall be provided with flanges that prevent the rope from slipping off the drum

19. It shall only be possible to start the winding engine for raising or lowering from its position of rest

20 It shall not be possible to start the winding engine from the platform

21 Pawls and ratchet wheels with which the pawl must be disengaged before the platform is lowered shall not be used

22 (1) Wherever possible, hoists that can be controlled from the winding engine shall be so installed that the engine attendant can always see the position of the platform from his stand

(2) If the conditions are such that the landings cannot be seen from the engine attendant's stand, special signalling arrangements shall be provided

23 (1) When the platform is at rest the brake shall be applied automatically

(2) During loading and unloading the platform shall be blocked by catches or other devices in addition to the brake

24 Hoists shall be provided with devices that stop the winding engine as soon as the platform reaches its highest stopping-place

25 Above the highest stopping-place a clearance shall be provided high enough to allow sufficient unobstructed travel of the cage or platform in case of overwinding

26 (1) No hoist shall be used unless it has been tested and examined by a competent person acting for the inspection authority and a certificate of such test and examination has been issued by that person in the prescribed form

(2) Such test and examination shall be repeated

(*a*) at such regular intervals as are prescribed by the competent authority, and

(*b*) after every substantial alteration or repair and every re-erection

27 No hoist shall be used for the conveyance of persons unless

(*a*) such use has been authorised by the competent authority, or

(*b*) the hoist has been certified by a competent person acting for the inspection authority as complying with the regulations in force for hoists in which passengers may be carried.

18 Les tambours des treuils doivent être munis de flasques lateraux empêchant les câbles de glisser hors des tambours

19 La mise en mouvement du treuil de la montee ou de la descente ne doit pouvoir s'effectuer qu'en partant d'une position d'arrêt

20 Le treuil ne doit pas pouvoir être mis en mouvement du plateau

21 Les roues à rochet dont le cliquet doit être liberé avant la descente du plateau ne doivent pas être employées

22 1) Autant que possible, les monte-charge qui peuvent être commandés du treuil doivent être aménagés de maniere que le conducteur dudit treuil puisse continuellement se rendre compte, de son poste de commande, de la position du plateau

2) Si les conditions sont telles qu'il soit impossible de voir du poste de commande les differents points desservis, un mode special de signalisation doit être prévu

23 1) Lorsque le plateau est a l'arrêt, le frein doit être applique automatiquement

2) Pendant le chargement et le déchargement, l'immobilisation du plateau doit être assuree, en outre, au moyen de taquets d'arrêt ou d'autres dispositifs analogues

24 Les monte-charge doivent être munis d'interrupteurs de fin de course, arrêtant automatiquement le treuil des que le plateau atteint son point d'arrêt supérieur

25 Au-dessus du point d'arrêt superieur il doit être ménagé un espace libre d'une hauteur suffisante pour permettre a la cage ou au plateau, en cas de depassement dudit point, de continuer son mouvement sur une distance suffisante, sans rencontrer aucun obstacle

26 1) Aucun monte-charge ne doit être utilise s'il n'a pas été eprouve et examiné par une personne compétente agissant pour l'autorité d'inspection et si un certificat desdits examens et epreuves, dans la forme prescrite, n'a pas été delivré par cette personne

2) Lesdits examens et épreuves doivent être repétes

a) a des intervalles réguliers, déterminés par l'autorite competente, et

b) apres chaque modification et réparation importante et après chaque nouveau montage du monte-charge

27 Aucun monte-charge ne doit être utilise pour le transport des personnes, a moins

a) qu'une telle utilisation ait ete autorisée par les autorités compétentes, ou

b) que le monte-charge soit reconnu, par une personne compétente agissant pour l'autorité d'inspection, conforme aux regles en vigueur sur les monte-charge destinés au transport des personnes

28 The following notices shall be posted up conspicuously and in very legible characters

(*a*) on all hoists

(i) *on the platform* the carrying capacity in kilograms or other appropriate standard term of weight, and

(ii) *on the winding engine* the lifting capacity in kilograms or other appropriate standard term of weight,

(*b*) on hoists authorised or certified for the conveyance of persons

on the platform or cage the maximum number of persons to be carried at one time,

(*c*) on hoists for goods only.

on every approach to the hoist "Goods Hoist! Use by persons prohibited"

Regulation 35 Miscellaneous Provisions

1 Precautions shall be taken to safeguard the workmen examining or lubricating a crane or hoist

2 No person shall be lifted or carried by a crane except on the driver's platform or ride in a barrow hoist or in a hod hoist

3 Every part of a load in course of being hoisted or lowered shall be adequately suspended and supported so as to prevent danger

4 (1) Every receptacle used for hoisting bricks, tiles, slates or other material shall be so closed as to prevent the fall of any of the material

(2) If loose materials or loaded wheelbarrows are placed directly on a platform for raising or lowering, the platform shall be closed in

(3) Material shall not be raised, lowered or slewed in such a way as to cause sudden jerks

5 In hoisting a barrow, the wheel shall not be used as a means of support unless efficient steps are taken to prevent the axle from slipping out of the bearings

6 When a special ginpole is used, it shall be secured by ropes in such a way that it cannot knock against the scaffolding

7 Jibs for hoisting materials shall not be attached to standards or extension poles

28 Les indications suivantes doivent être apposées d'une manière apparente et en caractères facilement lisibles

a) sur tous les monte-charge

i) *sur le plateau* la capacité de charge en kilogrammes ou en une autre unité de poids usuelle,

ii) *sur le treuil* la capacite de levage en kilogrammes ou en une autre unite de poids usuelle,

b) sur les monte-charge autorisés ou certifiés utilisables pour le transport des personnes

sur le plateau ou dans la cabine le nombre maximum de personnes pouvant être transportees a la fois,

c) sur les monte-charge destinés exclusivement au transport de matériaux

a chaque acces du monte-charge, les mots « Monte-charge, défense de transporter des personnes ! »

Règle 35 Prescriptions diverses

1 Les mesures necessaires doivent être prises pour assurer la securité des personnes chargees de la vérification et du graissage des grues et des monte-charge

2 Aucune personne ne doit être transportée par une grue, excepte sur la plate-forme du conducteur, ni par un élevateur à brouettes ou un monte-mortier

3 Chaque partie d'une charge levee ou descendue doit être convenablement suspendue et supportee de maniere à éviter tout danger

4 1) Tout récipient servant au levage de briques, de tuiles, d'ardoises ou d'autres matériaux, doit être suffisamment ferme de manière qu'aucune partie des materiaux transportés ne puisse tomber

2) Si des materiaux détaches ou des brouettes chargées sont leves ou descendus avec un plateau, ce dernier doit être entouré d'une protection

3) Des matériaux ne doivent pas être levés, descendus ou déplacés de maniere que des chocs brusques puissent se produire

5 Lors du levage d'une brouette, la roue ne doit pas être utilisée comme moyen de suspension, a moins que des mesures efficaces ne soient prises pour empêcher que l'axe glisse des coussinets

6 Lorsqu'un mât de levage independant est utilise, il doit être haubanné solidement a l'aide de cordes ou de câbles pour empêcher qu'il vienne heurter l'échafaudage

7 Des flèches destinées au levage de materiaux ne doivent pas être fixees aux montants des échafaudages ou a leur prolongement

8 When no jib but only a rope pulley is used, the latter may be attached to a cross beam if the cross beam

(*a*) is fixed to at least two standards or extensions in the way prescribed for ledgers, and
(*b*) does not at the same time serve as a ledger for the scaffold.

9 If a hoisting appliance or any part thereof moves along a scaffold, adequate measures shall be taken to prevent persons on the scaffold from being struck by the appliance or any part of it

10 The hoisting of loads at points where there is a regular flow of traffic shall be carried out in an enclosed space, or if this should be impossible (e g in the case of bulky objects), measures shall be taken to hold up or divert the traffic for the time being

11 Adequate steps shall be taken to prevent a load in course of being hoisted or lowered from coming into contact with any object in such a manner that part of the load or object may become displaced

Part III: Safety Equipment and First Aid

Regulation 36 Safety Equipment

1 Where necessary the employer shall provide the workmen with a sufficient number of respirators, goggles and safety belts

2 Safety belts shall have life lines of sufficient length and strength

Regulation 37 Rescue Equipment

When work is carried on adjoining water the employer shall take all the necessary measures and furnish all the necessary means for the prompt rescue of any worker who may fall into the water

Regulation 38 First-Aid Equipment

On every place where building is carried on the employer shall provide a sufficient number of first-aid boxes or cupboards each of which shall be readily accessible, shall be plainly marked, and shall contain suitable first-aid materials

8 Lorsqu'il n'est pas fait usage de flèches mais seulement d'une simple poulie, celle-ci peut être attachée à une poutre transversale si cette dernière

a) est fixée au moins a deux montants ou prolongements de montants de la manière prescrite pour les longerons, et

b) n'est pas utilisée comme longeron d'échafaudage

9 Lorsqu'un appareil de levage ou une partie d'un tel appareil se déplace le long d'un échafaudage, toutes les mesures nécessaires doivent être prises pour que les personnes se trouvant sur l'echafaudage ne puissent pas être heurtées par ledit appareil ou par l'une de ses parties

10 Le levage des charges près des emplacements de circulation habituelle doit se faire dans un espace clôturé, ou si cela est impossible (par exemple dans le cas du transport d'objets volumineux), les mesures necessaires doivent être prises pour arrêter ou détourner provisoirement la circulation

11 Les mesures necessaires doivent être prises pour empêcher que pendant le levage ou la descente la charge puisse entrer en contact avec un objet quelconque, de manière qu'une partie de ladite charge soit deportée ou qu'une partie dudit objet soit déplacee

Titre III: Equipement de protection et premiers secours

Règle 36 Equipement de protection

1 Si nécessaire, l'employeur doit mettre à la disposition des ouvriers un nombre suffisant de masques respiratoires, de lunettes de protection et de ceintures de sûreté

2 Les ceintures de sûrete doivent être munies de cordes de longueur et de résistance suffisantes

Regle 37 Moyens de sauvetage

Dans le cas de travaux a proximité de l'eau, l'employeur doit prendre toutes les mesures et fournir tous les moyens nécessaires pour le sauvetage rapide des ouvriers tombés a l'eau

Règle 38 Matériel pour les premiers secours

Sur chaque chantier de bâtiment, l'employeur doit fournir un nombre suffisant de boîtes pour les premiers secours ou d'armoires de pharmacie facilement accessibles, visiblement marquees, et contenant un materiel de premiers secours approprie

Part IV: Miscellaneous

Regulation 39 Communication of Regulations to Workers

Copies of these Regulations or such extracts thereof as may be prescribed by the competent authority shall be handed to the workers or conspicuously posted up and maintained at suitable places

Regulation 40 Duty of Employers to comply with Parts I to III

It shall be the duty of the employer to comply with Parts I to III of these Regulations

Regulation 41 - Co-operation of Workers and Other Persons with the Employer

1 Every person employed and every person in or upon the work shall co-operate with the employer in carrying out these Regulations

2 Every person employed shall forthwith remedy or report to the employer or foreman any defect that he may discover in the plant or appliances, or any action by any person liable to cause an accident.

3 No person shall interfere with, displace, take away, damage or destroy any of the plant or safeguards required by the foregoing Regulations without the authority of the employer or his responsible foreman.

4 Every person employed shall make proper use of all safeguards, safety devices or other appliances furnished for his protection and shall obey all safety instructions pertaining to his work

5 Every person employed shall work prudently, take the necessary precautions for his own and his workmates' safety, and abstain from any action that might endanger himself or his workmates

6 No employed person shall go to or from his workplace otherwise than by the safe means of access and egress provided

Titre IV: Prescriptions diverses

Regle 39 Communication des regles aux ouvriers

Le présent règlement ou des extraits fixés par les autorités compétentes doivent être donnés aux ouvriers ou affiches, d'une manière visible et durable, a des endroits convenablement choisis

Regle 40 Devoir de l'employeur de se conformer aux prescriptions contenues dans les titres I, II, III du règlement

Il incombe a l'employeur d'appliquer les prescriptions contenues dans les titres I, II et III du present reglement

Règle 41 Collaboration entre les employeurs et ouvriers ou autres personnes

1 Tout travailleur et toute personne se trouvant sur les lieux du travail doivent collaborer avec l'employeur pour l'application du présent reglement

2 Tout travailleur employé sur le chantier doit immediatement remédier ou signaler a l'employeur ou au chef du chantier toute defectuosite qu'il pourrait découvrir dans l'installation ou les appareils, ou toute faute de personne susceptible de provoquer un accident

3 Nul ne doit deranger, deplacer, enlever, endommager ou detruire les installations et les dispositifs de sécurite prescrits par le present reglement sans en avoir reçu l'autorisation de l'employeur ou du chef de chantier responsable

4 Tout travailleur employe sur le chantier doit utiliser convenablement tous les dispositifs de securite ou autres installations prevues pour sa protection et doit se conformer à toutes les consignes de sécurité se rapportant à son travail

5 Tout travailleur employé sur le chantier doit travailler prudemment, prendre les precautions necessaires pour sa propre protection et celle de ses compagnons de travail et s'abstenir de tout acte susceptible de le mettre en danger lui-même ou ses compagnons de travail

6 Nul travailleur ne doit se rendre à son emplacement de travail ou le quitter autrement qu'en utilisant les moyens sûrs d'accès et de sortie prévus

DRAFT RECOMMENDATION CONCERNING INSPECTION IN THE BUILDING INDUSTRY

Whereas the Safety Provisions (Building) Convention, 1937, and the Safety Provisions (Building) Recommendation, 1937, contain provisions relating to labour inspection,

Whereas the Conference adopted at its Fifth Session (1923) a Recommendation concerning labour inspection,

Whereas the Conference also adopted at its Twelfth Session (1929) a Recommendation concerning the prevention of industrial accidents, one part of which deals with the co-operation of all parties concerned with the authority responsible for inspection,

Whereas it is nevertheless desirable that in connection with the building industry the attention of Members should be drawn to certain other provisions not included in the above-mentioned Convention and Recommendations,

The Conference recommends that each Member of the International Labour Organisation should take the following principles and rules into consideration in connection with inspection in the building industry

I

1 All work in connection with the construction, repair, alteration, maintenance and demolition of buildings of all kinds should be subject to inspection

2 The authority responsible for inspection (hereinafter called the inspection authority) should be a public body and should have all powers necessary to ensure that the laws and regulations in force are strictly applied

II

3 The inspection authority should appoint a sufficient number of inspectors of scaffolding and inspectors of machinery

4 Inspectors of scaffolding should

(*a*) have had practical experience in building construction,

(*b*) have received adequate technical training to enable them to test the strength of materials and scaffolding of all kinds and of the appliances used with such scaffolding, and

(*c*) have passed a practical examination before appointment

PROJET DE RECOMMANDATION CONCERNANT L'INSPECTION DANS L'INDUSTRIE DU BATIMENT

La Conference,

Considérant que la convention et la recommandation concernant les prescriptions de sécurite (bâtiment), 1937, contiennent certaines dispositions relatives a l'inspection du travail,

Rappelant qu'elle a adopté, a sa cinquième session (1923), une recommandation concernant l'inspection du travail,

Rappelant en outre qu'elle a adopte, à sa douzième session (1929), une recommandation concernant la prévention des accidents du travail, qui traite dans une de ses parties de la collaboration à apporter par tous les interessés a l'autorité chargée de l'inspection,

Considérant toutefois que l'attention des Membres peut encore être attirée, en ce qui concerne l'industrie du bâtiment, sur d'autres dispositions ne figurant pas dans ladite convention et lesdites recommandations,

Recommande a chaque Membre de l'Organisation internationale du Travail de prendre en consideration les principes et règles suivants en ce qui concerne l'inspection dans l'industrie du bâtiment

I

1 Tous les travaux de construction, de réparation, de transformation, d'entretien et de demolition de bâtiments de toute catégorie devraient être soumis a l'inspection

2 L'autorite chargée de cette inspection devrait être un organisme public ayant les pouvoirs nécessaires pour assurer une stricte application des lois et règlements en vigueur

II

3 L'autorité chargée de l'inspection devrait nommer un nombre suffisant d'inspecteurs des echafaudages et d'inspecteurs des machines

4 Les inspecteurs des échafaudages devraient

a) posséder une expérience pratique en qualité de constructeurs,

b) avoir reçu une formation technique suffisante pour leur permettre de contrôler la resistance des matériaux et echafaudages de tout genre, ainsi que des appareils employés avec ces échafaudages,

c) avoir subi avec succès un examen pratique avant leur nomination

5 Inspectors of machinery should

(*a*) have a sufficient knowledge of mechanical engineering in general and have received a sound technical training, and

(*b*) have passed an examination in practical mechanical engineering before appointment

6 Inspectors of machinery should be responsible for inspecting cranes, lifts, hoists and other machinery and mechanical appliances used in the building industry

7 Inspectors of scaffolding and inspectors of machinery should

(*a*) be paid by the public authority responsible for the inspection, and

(*b*) be forbidden to accept any other remuneration from any source whatsoever

III

8 (1) The inspection authority should issue certificates to workers qualified to erect, maintain and dismantle scaffolding and to workers qualified to act as drivers of power-driven hoisting machinery

(2) Only workers in possession of such certificates should be permitted to carry out such work

9 In order to obtain a scaffolder's certificate a worker should, by practical work and special tests, have proved to the person appointed for the purpose by the inspection authority that he is qualified to erect, maintain and dismantle scaffolding and scaffolding gear

10 In order to obtain a certificate to act as a driver of power-driven hoisting machinery a worker should, by examination and practical tests, have proved to the person appointed for the purpose by the inspection authority that he has adequate knowledge to ensure the safe working of such machinery

IV

11 In order to ensure effective collaboration between the inspection authority and the head of the undertaking, national laws or regulations should make the head of the undertaking responsible

(*a*) for providing for constant and adequate supervision of the work so as to ensure compliance with the safety provisions in force,

(*b*) for taking all other steps necessary to prevent accidents, and in particular for not employing on work likely to

5 Les inspecteurs des machines devraient

a) avoir des connaissances suffisantes en mécanique générale et avoir reçu une bonne formation technique,

b) avoir subi avec succès, avant leur nomination, un examen de mecanique pratique et appliquée

6 Les inspecteurs des machines devraient être chargés de l'inspection des grues, ascenseurs, monte-charge et autres machines et installations mecaniques, utilisés dans l'industrie du bâtiment

7 Les inspecteurs des echafaudages et les inspecteurs des machines devraient

a) être rétribues par l'organisme public chargé de l'inspection,

b) se voir interdire d'accepter toute autre rémunération, quelle que soit sa provenance

III

8 1) L'autorité chargée de l'inspection devrait remettre des certificats d'aptitude aux ouvriers qualifiés pour la construction, l'entretien et le démontage des echafaudages et aux ouvriers qualifiés pour la conduite des appareils de levage mus par une force mécanique

2) Seuls, les ouvriers nantis de tels certificats devraient être autorises a exécuter lesdits travaux

9 Pour devenir titulaires d'un certificat d'échafaudeur les ouvriers devraient avoir, par leur travail pratique et au cours d'épreuves, démontre a la personne désignee a cet effet par l'autorite chargée de l'inspection qu'ils sont qualifies pour les travaux de montage, d'entretien et de démontage des échafaudages et dispositifs connexes

10 Pour devenir titulaires du certificat de conducteur d'appareils de levage mus par une force mecanique, les ouvriers devraient avoir fait la preuve, devant la personne désignee a cet effet par l'autorité chargée de l'inspection et a la suite d'examens et d'épreuves pratiques, de connaissances suffisantes pour assurer le fonctionnement sans danger de ces appareils

IV

11 En vue d'assurer une collaboration efficace entre l'autorité chargée de l'inspection et le chef d'entreprise, la législation nationale devrait attribuer au chef d'entreprise la responsabilite

a) d'assurer une surveillance constante et appropriée des travaux afin que les prescriptions de sécurité en vigueur soient observees,

b) de prendre toute autre mesure nécessaire pour prevenir les accidents, en particulier en n'employant pas, aux travaux

involve the risk of accidents any persons whom he knows to be deaf, of defective vision, or liable to giddiness,

(*c*) for submitting scaffolding plans to the competent inspector to the extent required by national laws or regulations,

(*d*) for informing the competent inspector of the erection of machinery or appliances; and

(*e*) for reporting to the competent inspector any accident occurring in the undertaking

12 In order to render this collaboration effective there should be set up within each undertaking a special safety organisation including representatives of the employer and the employed

13 It would also be desirable to have direct collaboration between the competent inspector and the representatives of the workers in the undertaking in the form and within the limits fixed by the inspection authority

14. Safety propaganda in the building industry would be more effective if there were constant co-operation between the inspection authority and all the organisations concerned: safety organisations (joint or separate) of employers and workers, trade unions and employers' associations, associations of architects or engineers, accident insurance institutions (public, semi-official or private)

15 (1) Periodical meetings should be held by representatives of the organisations mentioned in the preceding paragraph and representatives of the inspection authority, together with representatives of any other public bodies concerned

(2) The main purpose of such meetings should be to examine jointly the methods that might be taken to improve accident prevention in the building industry

16 The inspection authority should also promote accident prevention by collaborating with all parties concerned in the necessary propaganda, which might take such forms as safety education by training courses, demonstrations, meetings, lectures and films, the distribution of manuals, pamphlets, magazines or publications reproducing or analysing accident statistics, and the distribution of posters and notices which should as far as possible be illustrated

susceptibles d'entraîner des risques d'accident, des personnes qu'il saurait atteintes de surdité, de vue défectueuse ou d'une faculté de résistance insuffisante au vertige,

c) de soumettre, dans les conditions fixees par la législation nationale, les plans d'échafaudages a l'inspecteur compétent,

d) d'informer l'inspecteur compétent de toute installation de machines et d'appareils,

e) de faire rapport à l'inspecteur compétent de tous les accidents survenus dans son entreprise

12 Pour établir efficacement cette collaboration il devrait être créé, à l'intérieur de l'entreprise, une organisation spéciale de sécurité comprenant des représentants de l'employeur et du personnel

13 Il serait également souhaitable qu'une collaboration directe, sous une forme et dans des limites déterminées par l'autorité chargee de l'inspection, s'etablît entre l'inspecteur competent et des représentants des travailleurs de l'entreprise

14 La propagande pour la securité dans l'industrie du bâtiment serait rendue plus efficace par une collaboration suivie, avec l'autorité chargée de l'inspection, de toutes les organisations interessées organisations (mixtes ou séparées) d'employeurs et de travailleurs pour la prevention des accidents, syndicats ouvriers et patronaux, associations d'architectes, d'ingénieurs, institutions (publiques, semi-officielles ou privées) d'assurance contre les accidents

15 1) Il devrait être tenu des réunions periodiques entre représentants des organisations visées au paragraphe précedent avec ceux de l'autorite chargée de l'inspection, auxquels pourraient s'adjoindre des representants des autres organismes publics intéressés

2) Ces réunions auraient pour principal objet l'examen en commun des méthodes susceptibles d'ameliorer la prevention des accidents dans l'industrie du bâtiment

16 L'autorité chargée de l'inspection devrait egalement apporter son concours à la prévention des accidents en collaborant, avec tous les intéressés, à la propagande nécessaire s'exerçant, par exemple, sous les formes suivantes enseignement de la securite (seances d'instruction, démonstrations, réunions, conférences, projections cinematographiques), distribution de manuels, brochures, magazines ou publications reproduisant ou analysant les statistiques sur les accidents, apposition d'affiches et de notices, illustrees autant que possible

DRAFT RECOMMENDATION CONCERNING VOCATIONAL EDUCATION FOR THE BUILDING INDUSTRY

The Conference,

Recalling that at its Twelfth Session (1929) it adopted a Recommendation concerning the prevention of industrial accidents, one part of which deals with vocational training,

Considering that in view of the risk of accident vocational education is of special importance in the case of the building industry,

Recommends that technical and vocational school curricula relating to the building industry should include theoretical and practical instruction concerning

(*a*) the materials used for the construction of scaffolding and the principles of erecting and maintaining scaffolding,

(*b*) the construction and maintenance of the hoisting appliances used in the building industry, and

(*c*) the supervision of building work

PROJET DE RECOMMANDATION CONCERNANT L'ÉDUCATION PROFESSIONNELLE POUR L'INDUSTRIE DU BATIMENT

La Conference,

Rappelant qu'elle a adopte a sa douzième session (1929) une recommandation concernant la prévention des accidents du travail, qui traite dans une de ses parties de l'education professionnelle,

Considerant que l'education professionnelle présente une importance particuliere pour l'industrie du bâtiment, du fait du risque d'accidents,

Recommande que les programmes des écoles techniques et professionnelles comprennent, en matière d'industrie du bâtiment, une instruction theorique et pratique

a) sur les matériaux utilisés dans la construction des échafaudages et sur les principes de la construction des échafaudages et de leur entretien,

b) sur la construction et l'entretien des appareils de levage utilisés dans l'industrie du bâtiment,

c) sur la surveillance des travaux du bâtiment

DRAFT RECOMMENDATION CONCERNING SAFETY PROVISIONS IN GOVERNMENT BUILDING CONTRACTS

Whereas contracts entered into by the State and other public authorities frequently contain provisions going beyond the statutory requirements,

Whereas it may be necessary to proceed by stages in giving effect by laws or regulations to the Model Code annexed to the Safety Provisions (Building) Recommendation, 1937, and

Whereas it is therefore desirable that the specifications of building contracts entered into by public authorities should set an example,

The Conference recommends that each Member of the International Labour Organisation should apply the following rules

1 The specifications for building contracts entered into by the State and other public authorities should contain a special clause drawing attention to the contractor's obligation to comply with the existing safety regulations

2 This clause should also require the contractor to comply with such of the provisions of the Model Code which have not yet been embodied in national laws or regulations as are specified by the competent authority

3 This clause should be drafted in such a way that it does not tend to limit the moral responsibility of the employer to take the most effective steps to ensure the safety of the workers

PROJET DE RECOMMANDATION CONCERNANT LES CLAUSES DES MARCHÉS DE L'ÉTAT RELATIVES A LA SÉCURITÉ DANS L'INDUSTRIE DU BATIMENT

Considérant que les contrats passés par l'Etat ou par toute autre autorite publique contiennent frequemment des dispositions allant au dela de la réglementation de droit commun,

Considérant que le règlement-type annexé a la recommandation concernant les prescriptions de sécurité (bâtiment), 1937, peut être appelé à une application progressive par mesure legislative ou réglementaire,

Considérant qu'il est desirable que, dans les cahiers des charges des marchés concernant le bâtiment, passés par l'autorite publique, le chemin soit trace en vue de cette application progressive,

La Conference recommande a chaque Membre de l'Organisation internationale du Travail les regles suivantes

1 Les cahiers des charges des marches concernant le bâtiment, passés par l'Etat ou par toute autre autorite publique, devraient contenir une clause spéciale rappelant l'obligation d'observer la réglementation de sécurite en vigueur

2 En outre, cette clause devrait comporter, selon une discrimination effectuee par l'autorite compétente, l'obligation d'observer les dispositions du reglement-type de securite qui n'auraient pas encore ete imposees par la réglementation nationale

3 Cette clause devrait être redigee de telle manière qu'elle ne tende pas a diminuer la responsabilite morale de l'employeur d'assurer le plus efficacement possible la sécurite des travailleurs